

ENVIRONMENTAL ASSESSMENT BOARD



ONTARIO HYDRO DEMAND/SUPPLY PLAN HEARINGS

VOLUME: 181

DATE: Tuesday, January 19, 1993

BEFORE:

HON. MR. JUSTICE E. SAUNDERS	Chairman
DR. G. CONNELL	Member
MS. G. PATTERSON	Member

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ENVIRONMENTAL ASSESSMENT BOARD
ONTARIO HYDRO DEMAND/SUPPLY PLAN HEARING

IN THE MATTER OF the Environmental Assessment Act,
R.S.O. 1980, c. 140, as amended, and Regulations
thereunder;

AND IN THE MATTER OF an undertaking by Ontario Hydro
consisting of a program in respect of activities
associated with meeting future electricity
Requirements in Ontario.

Held on the 5th Floor, 2200
Yonge Street, Toronto, Ontario,
Tuesday, the 19th day of January,
1993, commencing at 9:00 a.m.

VOLUME 181

B E F O R E :

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DR. G. CONNELL	Member
MS. G. PATTERSON	Member

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1 ---Upon commencing at 9:04 a.m.

2 THE REGISTRAR: Please come to order.

3 This hearing is now in session. Be seated, please.

4 THE CHAIRMAN: Mr. Heintzman?

5 MR. HEINTZMAN: Thank you, Mr. Chairman.

6 AMIR SHALABY,
7 PAUL JONATHAN BURKE,
8 BRIAN PAUL WILLIAM DALZIEL,
9 JOHN KENNETH SNELSON; Resumed.

9 CROSS-EXAMINATION BY MR. HEINTZMAN (Cont'd):

10 Q. Panel, I would like to spend a few
11 minutes this morning on demand management and in
12 particular on the testing, pilot programs and
13 evaluation of demand management, and I guess my
14 question should be directed to you, Mr. Shalaby.

15 You have told us that Ontario Hydro has
16 discontinued its refrigeration buy-back program, pilot
17 program.

18 MR. SHALABY: A. It's intending to offer
19 it together with other initiatives, but not as a
20 separate initiative. And it is not intending to pay
21 money for pickup of old refrigerators.

22 I think the plan is to continue to offer
23 to pick up old refrigerators but without paying \$50, I
24 think the money was.

25 Q. So the incentive part of the program

1 or the pilot program is being discontinued?

2 A. To my knowledge those are the ideas
3 being floated now, yes.

4 Q. I suggest to you that that indicates
5 two things: First of all, that pilot programs are a
6 necessary element because you may find that the program
7 isn't necessary or is going in a direction that's not
8 appropriate.

9 THE CHAIRMAN: Is necessary or
10 unnecessary?

11 MR. HEINTZMAN: Q. Is a necessary.
12 Pilot programs are a necessary or good thing, if I can
13 use a word that may find more favour, to evaluate where
14 you are going and to allow you to stop if it's not
15 appropriate to go in that direction.

16 MR. SHALABY: A. I agree with that.

17 Q. And secondly, that it is necessary to
18 evaluate your pilot programs?

19 A. I agree with that as well.

20 Q. And you have told us in relation to
21 Espanola project that the evaluation is a long-term
22 matter and takes a long time to really understand what
23 is going on.

24 A. Some things take longer to fully
25 understand than others, yes.

1 Q. And I suggest to you that this leads
2 to the conclusion that Ontario Hydro will have to spend
3 a considerable amount of money on pilot projects if
4 it's to be successful in its demand management program?

5 A. Some segments of the market would
6 require expenditures in pilot projects and things of
7 that nature and others have matured and we are already
8 in full fledged programs.

9 Q. But in respect of new programs, and
10 in determining what areas you are to go, I suggest to
11 you and I think the experience in the United States
12 indicates that you have to spend a lot of money testing
13 with pilot projects.

14 A. There is expenditures. A lot of
15 money just gives me a little bit of -- what may be a
16 lot to me may not be to you.

17 It's a considerable effort.

18 Q. And once you test and put your pilot
19 project in place you have to spend monies on evaluating
20 that?

21 A. Yes.

22 Q. All of this testing, pilot
23 programming, evaluating isn't producing any demand
24 management itself, i.e., any reduction in demand
25 itself; it's evaluating where to go with your program.

1 A. It often reduces demand as well, but
2 its value is rather in indicating what the direction of
3 the larger program would be.

4 Q. And I suggest to you that this is
5 really telling us two things: First of all, if in
6 respect of a subject matter you have to do a
7 considerable amount of testing, pilot programming and
8 evaluating, then you are dealing with a subject matter
9 that's uncertain.

10 A. Has variables that need to be pinned
11 down more and to be focused more, yes.

12 Q. Yes. And it's going to be costly.

13 A. It takes money to do these
14 activities, yes.

15 Q. And I have read in the transcript
16 that the cost for the administration of demand
17 management is now projected at being \$700 as a generic
18 average rather than the previous forecast of \$350 per
19 kilowatthour, I think it is.

20 A. The dollars were per kilowatt and we
21 discussed the nature of those numbers and the use of
22 those numbers in long-term system planning studies,
23 yes.

24 Q. Is a part of that increase or
25 doubling of cost per kilowatt attributable to pilot

1 projects, testing and evaluation, or is that
2 administration costs?

3 A. Well, let me take you back to -- you
4 may not have been here when we discussed the
5 appropriate use of that \$700 per kilowatt.

6 Mr. Burke and I explained that those were
7 figures that I used in long-term system planning
8 studies. They are not detailed enough to describe the
9 administrative cost in different programs. Like, this
10 is a generic number for all the effort in the long-term
11 and there may be reasons that would push that number
12 down.

13 I have the feeling that that number is
14 overestimated. There are market segments that are more
15 costly than others. Typically residential demand
16 management, for example, has higher administrative
17 costs than industrial.

18 So to group all the demand management
19 under one umbrella and put one number to describe it
20 all is too much of an oversimplification to describe
21 the business.

22 Q. It's the best that we have got at the
23 present time, is it?

24 A. I am not sure whether it helps us in
25 discussing the testing and pilot work that you are

1 discussing. So maybe you can ask your questions about
2 whether it indicates whatever and we will see whether
3 it's appropriate for that or not.

4 Q. Can you produce for me the method by
5 which that \$700 number was calculated?

6 A. I'm not familiar enough with it to do
7 that.

8 Q. Can I obtain an undertaking to
9 produce the basis of that \$700 per kilowatt
10 calculation?

11 A. I think we indicated that number gets
12 reviewed and I'm not comfortable enough with it that I
13 think it should be something that you are base any
14 conclusions on or to indicate much about the demand
15 management costs at this time.

16 There are much better areas it assess the
17 administrative effort and the costs associated with
18 demand management, there are much more detailed numbers
19 and higher resolution numbers than that.

20 Q. Well, in arriving at the costs
21 associated with the demand management as set forth in
22 the attachments to Exhibit 796, and in particular the
23 ranking of options, and you may be able to remember the
24 number of it, because I don't. I think it is D. The
25 ranking of the various options, if we turn to

1 attachment G, economic ranking of surplus management
2 options, page 13, figure 4.1.

3 A. What page?

4 Q. Page 13, figure 4.1, attachment G to
5 Exhibit 796.

6 A. Yes.

7 Q. In ranking those and in particular
8 the demand management elements that we see sprinkled
9 throughout that figure, do I take it that a figure of
10 \$350 per kilowatt was used for administration costs?

11 A. That's right.

12 Q. So that if a number of \$700 was used,
13 then the elements for demand management would change
14 position, or would become more expensive and therefore
15 the benefit of deferral would be greater?

16 A. Yes.

17 Q. And have calculations been done to
18 show how those particular elements would change?

19 A. No.

20 Q. Is it possible to do them?

21 A. What purpose would they serve if we
22 do them? It is possible to do all kinds of
23 calculations, the question is, does it serve a useful
24 purpose.

25 Q. What I want to know, this document,

1 this figure has been put forward repeatedly in these
2 documents for the purpose of showing the benefit or
3 lack thereof of any particular option, and options is
4 something this Board is concerned with. And I want to
5 know, based upon the present number of \$700 per
6 kilowatt, what ranking the demand management programs
7 have?

8 A. Well, what we indicated in the main
9 portion of the exhibit and in direct testimony as well,
10 is that this was an early indication of whether there
11 is potential to postpone and defer some demand
12 management options, and that served that purpose while
13 more detailed assessment of exactly what is it that can
14 be postponed and what is it that is uneconomic took
15 place and got published in the net load impact, which
16 is chapter 5 of the load forecast.

17 So this was an assessment of a quick and
18 convenient way of deciding whether there are categories
19 of demand management that can be postponed to save
20 capital dollars in late 90s.

21 Subsequent to that, a more detailed
22 assessment that we rely on more heavily has been
23 completed and has been published and that's what we go
24 by at this time, and that more complete assessment uses
25 \$700 a kilowatt.

1 Q. I haven't seen in any attachments,
2 correct me if I am wrong, to Exhibit 796, that do a
3 different ranking than the one shown on figure 4.1.
4 [9:15 a.m.]

5 A. The information is displayed in a
6 different way than the ranking. This ranking was for
7 one purpose; the net load impact in the load forecast
8 is used for another purpose.

9 Q. Can you show me where it is ranked
10 differently in these documents?

11 A. It doesn't. It is not ranked
12 differently.

13 Q. Where is it ranked other than in
14 accordance with this chart?

15 A. It is not. I am saying it is not.

16 Q. Well, can I then have two things from
17 you. First of all, I want a calculation of how you get
18 to the \$700 number. Can you undertake to provide that
19 to me?

20 A. Well, I just indicated to you that it
21 is not a number that I find very useful or very
22 indicative for projecting administration costs for
23 demand management.

24 Q. Well, it is the one that was used to
25 prepare this last analysis that you have just referred

1 to.

2 A. No, it was used for long-term
3 screening -- numbers are used for many purposes, and it
4 is not right to use a number that was whipped up
5 quickly for crude screening and then decide that this
6 is Hydro's projection of administration costs. It is
7 just not the right use for it.

8 THE CHAIRMAN: Sorry to interrupt, Mr.
9 Heintzman. I hope you will forgive me, but I am a
10 little confused. I thought you said a few moments ago
11 the \$350 was used in making the calculations that
12 resulted in figure 4.1 of Exhibit G. Is that correct?

13 MR. SHALABY: That is correct, Mr.
14 Chairman.

15 THE CHAIRMAN: So it was used for this.
16 So the figure, be it 350 or 700, is used - granted it
17 is a long-term figure - is used for this purpose; is
18 that correct?

19 MR. SHALABY: That is correct.

20 THE CHAIRMAN: So it is a useful or may
21 be, it is one of the elements that goes into this
22 calculation?

23 MR. SHALABY: It is. And if it is taken
24 in the sense of being a crude estimate of aggregate
25 administration cost, then that's fine.

1 But if it is taken beyond that - that it
2 is an indication of testing or an indication of the
3 market research that is necessary to float programs -
4 then we are reading too much in it.

5 THE CHAIRMAN: I don't want to get any
6 farther into that.

7 MR. SHALABY: That's right.

8 THE CHAIRMAN: But the second thing I
9 thought I heard you say was that there has been another
10 ranking done which has been published which uses the
11 700 figure.

12 MR. SHALABY: No, I may have been unclear
13 at that stage. It is not a ranking; it is the
14 attainable demand management that is published in the
15 load forecast.

16 THE CHAIRMAN: That was published in the
17 1992 load forecast?

18 MR. SHALABY: That is correct.

19 THE CHAIRMAN: It used the 700 figure?

20 MR. SHALABY: That is right. That is
21 right. And it is not in the format of ranking, but it
22 is in the format of how many megawatts are available in
23 each sector of the market.

24 MR. HEINTZMAN: In other words --

25 THE CHAIRMAN: Now, just one moment. I

1 am not quite sure I understand why it is that you are
2 resisting providing Mr. Heintzman with the way you
3 calculate the \$300 figure and the way you calculate the
4 \$700 figure.

5 MR. SHALABY: The way we calculate the
6 \$350 figure is on the record.

7 The only reason I am reluctant to provide
8 the 700 is that I feel that it would be used as an
9 indication of testing or an indication of market
10 research. I am just linking it to the context in which
11 the questions are being asked, and I think it is not
12 appropriate. It wasn't done with that kind of
13 resolution in mind or that kind of detail in mind.

14 If you want to take it with whatever
15 caveats I give you, that it is a crude number used for
16 crude screening, that's fine, but don't read into it
17 that it therefore implies a lot of testing or a lot of
18 market research or anything of that nature. It does
19 not.

20 MR. HEINTZMAN: Q. Well, let's start.
21 Can I get the calculation of the \$350, the way you
22 calculate it, and the way you calculate the \$700 per
23 kilowatt administrative cost?

24 MR. B. CAMPBELL: The \$350 figure, Mr.
25 Chairman, was extensively discussed in Panel 4. My

1 friend can refer to that evidence for the 350. For the
2 700 we will provide how that figure was estimated with
3 the appropriate caveats as to its use.

4 MR. HEINTZMAN: And can I get an
5 undertaking for that then, Mr. Chairman?

6 THE REGISTRAR: 940.22.

7 ---UNDERTAKING NO. 940.22: Ontario Hydro undertakes to
8 provide for the \$700 figure discussed
9 above how this figure was estimated,
with the appropriate caveats as to
its use.

10 MR. HEINTZMAN: Q. And may I, Mr.
11 Shalaby, also obtain then an undertaking from you to
12 tell me how the numbers on figure 4.1 of page 13 of
13 attachment G to Exhibit 796 would be varied for the
14 demand management items using the \$700 per kilowatt
15 administrative charge?

16 MR. SNELSON: A. That is a calculation
17 which hasn't been done, so it would require additional
18 calculations to be performed.

19 Q. Yes? Can you do those for me and
20 tell me what the numbers would be?

21 MR. B. CAMPBELL: I'm not sure what is
22 involved in doing those calculations. How much work
23 are we talking about here. Can you tell me how much
24 work you are talking about here and what reliability
25 you would see on the results of doing that work?

1 MR. SNELSON: Well, with respect to the
2 reliability, our evidence has been that the demand
3 management deferrals that that table refers to were
4 used to make some decisions about demand management at
5 the October board meeting, and those decisions about
6 demand management deferrals have been superseded by the
7 new estimates of demand management potential which are
8 in the December load forecast.

9 So if we were to do this calculation it
10 would not have significance with respect to the new
11 load forecast and the latest data. It would only have
12 significance of a historical perspective.

13 MR. HEINTZMAN: Q. I don't understand
14 that. I thought I just understood from Mr. Shalaby
15 that when I look at Exhibit C to the elements of demand
16 management, for instance on pages leading up to page
17 36, that all of the elements of how demand management
18 work out, which, as I pointed out yesterday, leads to
19 it being halved by 2015, are based on an administrative
20 charge of \$700 per kilowatt. Isn't that what I just
21 heard?

22 MR. BURKE: A. Yes, that's correct. And
23 I believe at various points in this panel I have
24 explained that impact of the \$700 per kilowatt number
25 didn't really make a material difference on the

1 attainable demand management.

2 There are two segments that are impacted;
3 that is, screened out by the \$700 a kilowatt versus the
4 \$350 a kilowatt administration cost. There is
5 something much less than the 100 megawatts of
6 residential thermal envelope efficiency improvements,
7 and it is not even clear whether the increase in the
8 administration cost is the reason why baseboard
9 electric conversions in the residential sector to gas
10 are screened out.

11 So that what is clear is that the numbers
12 that are here which used \$700 per kilowatt
13 administration charge are only off a little bit because
14 of that change.

15 The truth probably lies somewhere between
16 the 350 and 700. We just have said at various stages
17 that this was an estimate based on the early years of
18 the program, which we are not confident should be
19 generalized into the long term, and we are still
20 looking at the numbers to see if there is a better
21 estimate. I think we went into that with Mr. Rodger in
22 some detail yesterday.

23 Q. Well, somebody is going to have to
24 make a judgment on that point.

25 What I want to know is if you have used

1 the \$700 in your December, 1992 plan and forecast what
2 is the ranking of the programs on figure 4.1, page 13,
3 attachment G to Exhibit 796, using \$700 per megawatt?
4 What are the numbers? Can I get those?

5 MR. B. CAMPBELL: Well, Mr. Chairman, on
6 that I think the witnesses have said -- and I will try
7 and be helpful here.

8 I think the witnesses have said that that
9 ranking has been entirely superseded by the net load
10 impact in the load forecast. That is their testimony.

11 We have an interrogatory which we have
12 agreed to with the MEA that shows what programs
13 become -- that will show the screening and what
14 programs -- the application of the screening numbers to
15 show what programs are believed now to become
16 uneconomic according to that.

17 What I would suggest is that given that
18 is the place the number is used and that the earlier
19 calculations have been superseded, as I understand the
20 evidence, then what I would suggest is that we will
21 provide a copy of the details of the screening
22 including the inputs and outputs on the screening which
23 the interrogatory covers to my friend.

24 MR. HEINTZMAN: Well, I am glad to hear
25 that there is an interrogatory on the table, but I am

1 not satisfied with that because I want to see how these
2 programs rank with other programs to see how they shake
3 out vis-a-vis the other elements shown on figure 4.1.

4 THE CHAIRMAN: Well, I guess I'm a little
5 bit confused about why that is a problem.

6 It seems to me that it is reasonable for
7 the intervenor to find out what is the impact on this
8 ranking exercise even if it is a past history of a
9 dramatic 100 per cent increase in the administrative
10 cost of the programs.

11 That doesn't seem to be a difficult
12 exercise. Perhaps I am wrong about that. But why
13 don't we get it for them and go on to something else.
14 Is there any reason that is a problem?
15 [9:25 a.m.]

16 MR. SNELSON: It is a new calculation and
17 it is likely of the order of one or two man-days work.
18 It's that level of activity we are talking about.

19 THE CHAIRMAN: I think in that case it's
20 worth doing, so let's get it and go on to something
21 else.

22 MR. HEINTZMAN: Can we have an
23 undertaking for that, please, Mr. Chairman.

24 THE REGISTRAR: 940.23.

25

1 ---UNDERTAKING NO. 940.23: Ontario Hydro undertakes to
2 provide whether they have used the \$700
3 in the December, 1992 plan and forecast
4 the ranking of the programs on figure
5 4.1, page 13, attachment G to Exhibit
6 796, using \$700 per megawatt; what are
7 the resulting numbers.

8 MR. HEINTZMAN: Q. And, Mr. Shalaby, I
9 take it from what you are saying you are not able to
10 tell us now whether in that \$700 per kilowatt there is
11 much of a charge for things like testing, pilot
12 projects, evaluation and all the costs associated with
13 that kind of activity?

14 MR. SHALABY: A. There is a charge for
15 all of that.

16 Q. In that \$700?

17 A. Yes.

18 Q. I would suggest to you that the \$700
19 could well be just the tip of the iceberg, and that the
20 cost for demand management could greatly exceed \$700,
21 if it turns out to be the fact that the cost of
22 testing, pilot projects and evaluation thereof is or
23 becomes a very large portion of the cost of demand
24 management. Is that is a fair statement?

25 A. What you are saying, if you spend an
26 awful lot of money then the costs go up, is that what
27 you are saying?

28 Q. Yes.

1 A. Then one has to question the motive
2 for spending an awful lot of money. I think the cost
3 of testing is not something that happens; people make
4 decisions on what is appropriate test for a specific
5 market, what are the expected benefits of that testing,
6 and it's unlikely that we were going to so extensive
7 and so high cost testing that we don't see a benefit
8 for it in the long-term.

9 In fact, it is exactly that phenomenon
10 that you are talking about of testing, for example, and
11 many others like developing standards that fall in the
12 category Mr. Burke was talking about. It's start up
13 costs, it's high initial cost, and to divide that cost
14 by the achievement in megawatts in one year, if there
15 is a year you are doing an awful lot of testing and an
16 awful lot of developing of standards, and many other
17 things that don't yield megawatts in that one year,
18 that is an investment in the future, and in my opinion
19 should not be charged towards the megawatts that are
20 achieved that year. That's why the number is high and
21 that's why I am uncomfortable with it.

22 Our expenditures yield megawatts in the
23 year that they are spent and they also prepare the road
24 for megawatts to be harvested in future years. There
25 is infrastructure being built, there is product

1 knowledge being gained, market research being gathered,
2 all kind of things that would yield results in the
3 future that we are spending money on now.

4 So this simple division of expenditures
5 in '92 by megawatts in '92 or '91, is overly simplistic
6 in deciding what the administrative costs to be
7 allocated to a specific megawatt or kilowatt.

8 Q. What I am suggesting to you is that
9 testing, evaluation, pilot projects are something
10 that are going to be a continuing phenomenon; not to go
11 that historically happened in 1992 and before, it will
12 a continuing phenomenon if Ontario Hydro is to have a
13 successful demand management program. I think you have
14 agreed with that.

15 A. Yes.

16 Q. So that those costs are going to
17 continue and will accelerate to levels, if American
18 experience pertains, that is greatly in excess of that
19 which Ontario Hydro is presently planning.

20 A. I don't know what experience you are
21 referring to, so I am reluctant to accept that.

22 Q. Do you know what the cost of testing,
23 evaluation, pilot projects has been historically in the
24 United States?

25 A. Not in detail.

1 MR. BURKE: A. I might just like to add
2 that utilities aim for and few rarely achieve spending
3 10 per cent of the total cost of demand management on
4 the evaluation portion of it. Ontario Hydro is
5 currently spending less than 10 per cent, but that's
6 about as high as it has ever gotten, I believe, in the
7 U.S.

8 Q. That's your evidence?

9 A. Yes.

10 Q. Now, one point was brought out which
11 is allied to this and I want to touch on it. Before we
12 leave that graph, by the way, on figure 4.1, I would
13 just ask you to look at that for a moment, on page 13
14 of attachment G.

15 Do you have that in front of you, Mr.
16 Shalaby?

17 MR. SHALABY: A. Yes, I do.

18 Q. The number in the bottom right-hand
19 corner I believe is a typo. In all of the other
20 documents it's shown as 480. If you multiply the two
21 columns together I believe you get 480, not 48. If you
22 look at other examples of it, it's 480.

23 MR. DALZIEL: A. It looks to me as
24 though that should be 480.

25 Q. Yes. So that retubing of Bruce "A"

1 or Bruce "A2" or continuation of those are the two most
2 valuable projects listed on this page, i.e., the most
3 valuable to proceed with and the most costly to defer?

4 A. That's what the chart indicates. And
5 I am just checking another place where this information
6 is listed and that number should be 480.

7 Q. Yes. And they are the most valuable
8 by something like two times or eight or nine times,
9 depending on which one -- well, if you look under the
10 dollars per kilowatt, which I guess is the proper
11 column to look under really to get a sense of value,
12 they are more valuable by at least two times than any
13 other alternative.

14 A. Yes.

15 Q. Now, Mr. Burke, can we come back to a
16 point that relates to demand management and that's the
17 issue of mandation risk, and I think in answer to
18 counsel yesterday you say that the mandation risk has
19 disappeared and you were looking at that time at a
20 primary power energy chart. But in fact, the mandation
21 risk is now contained in the basic load forecast; isn't
22 it?

23 MR. BURKE: A. The definition of the
24 mandation risk assessment it was talked about in Panel
25 4 was the risk that either standards would not be

1 implemented or that fuel switching choices would not be
2 regulated in the new marketplace. And all that is left
3 of either of those two is the standards contained in
4 the basic load forecast, the 350 megawatts of
5 incremental standards from the previous load forecast,
6 of which a large portion of that is already legislation
7 or about to be legislation, and there remain some
8 standards which are in the highly likely category that
9 are included there.

10 And so by the definition of the mandation
11 risk that we were talking about before, yes, there is
12 some risk associated with the portion of the 350
13 megawatts of standards in the basic load forecast. I
14 didn't have the precise numbers as to what portion of
15 the 350 by the year 2000 is associated with standards
16 that are pretty well implemented versus those that have
17 some possibility of not occurring. But I would think
18 that it is a smaller portion of the 350 megawatts for
19 which some risk remains.

20 Q. And just dealing with the \$700 number
21 once more, I take it that there are some programs that
22 are more costly than that and some that are less costly
23 than that?

24 A. Well, the \$700 administration per
25 kilowatt is only an element of the cost of the program.

1 And what is critical in using that number is whether,
2 when all of the costs are included in the total
3 customer cost test, of which the administration cost
4 per kilowatt is only one, does it still pass the total
5 customer cost test against the avoided cost of power.
6 And as I indicated, there are only two areas where the
7 costs were sufficiently marginal, that is sufficiently
8 high that the effect of adding \$350 a kilowatt to the
9 administration charge had the effect of screening out
10 the option as an economic option against Hydro's
11 avoided costs as they stood in March of '92, and
12 subsequently, as you know, avoided costs have come
13 down.

14 So that if we were to rescreen again with
15 the up-to-date numbers, probably things would change
16 again, and that's something that we have undertaken to
17 provide. We also might not use the \$700 a kilowatt
18 number again. But nonetheless, I have indicated that
19 there are two end-uses which were screened out: The
20 residential thermal envelope measures and I believe the
21 number is --

22 Q. Mr. Burke, that wasn't my question.
23 My question was, there are some programs that are
24 more expensive. It's an average number, right? It's a
25 generic average as I understood you to say.

1 A. Well, the administration cost is
2 applied to all programs. It is not representative of
3 the cost of programs.

4 Perhaps I didn't understand your question
5 properly.

6 Q. Are you telling me then that the
7 number of \$700 was created as an overall number. It
8 was not built up so that we can tell which programs are
9 going to cost more than \$700 and which programs are
10 going to cost less than \$700 at this point?

11 A. We are now covering ground we have
12 covered in Panel 4 and in this panel already that in
13 the long term we do not know which programs are going
14 to be delivered and so the charge is applied to
15 technologies by end use.

16 We do not have in the long term programs
17 to deliver the megawatts, so we can't say which is
18 going to be administratively more expensive.

19 In the short term where programs have
20 been described, specific numbers, not the \$700 a
21 kilowatt, but specific numbers for those programs are
22 prepared by the energy management branch and applied to
23 those programs.

24 Q. But it necessarily follows that if
25 the number is an average generic number, that there are

1 going to be an equal number of programs that are more
2 expensive and an equal number that are less expensive.

3 MR. SHALABY: A. Yes, I indicated to you
4 not five minutes ago that residential programs are more
5 expensive than industrial programs, for example, yes.

6 Q. Now, I want to spend a few minutes
7 with you on the issue of non-utility generation. Who
8 should I direct these questions to? To you, Mr.
9 Snelson?

10 MR. SNELSON: A. Initially to me, and if
11 they are difficult questions I will pass them to
12 somebody else.

13 Q. They will be very simple.

14 It's a simple proposition that I want to
15 put to you and, namely, that in today's environment we
16 are in a situation where the conditions are very
17 favourable for NUG producers and very unfavourable for
18 Ontario Hydro.

19 A. That is a sweeping generalization,
20 but there some aspects that go in those directions.

21 Q. Yes. That's the direction of the
22 present situation, to use your phrase that you like to
23 use.

24 A. That there are some factors pushing
25 in those directions.

1 Q. And the result is that there are no
2 contracts now being undertaken by Ontario Hydro because
3 it's not in Hydro's economic interest to undertake them
4 even though it's very much in the interests of NUG
5 producers to have them available.

6 A. We are certainly in the situation
7 that we have more NUGs offered to us and we are not
8 accepting NUG proposals at this time.

9 Q. And that's because the present
10 circumstances, i.e., low gas prices, low interest
11 costs, et cetera, are very favourable to the NUG
12 producers, but the same economic conditions that give
13 rise to those make it uneconomic for Hydro to buy them;
14 right?

15 A. Certainly the factors you have
16 mentioned tend to reduce the costs of the NUGs and so
17 they definitely encourage NUG production. The factors
18 that discourage Ontario Hydro from buying are not
19 really the same factors; they are a different set of
20 factors.

21 Q. They are the same economic factors.
22 The fact that there is not the economic activity
23 therefore there is not the demand, therefore there is
24 not the requirement for NUGs, et cetera. It's the same
25 as commercial office buildings in Toronto, you can buy

1 them today if you want to, but nobody is buying.

2 A. I am just trying to be quite clear on
3 specific factors. The specific factors that you have
4 indicated favour NUGs are low gas prices and low
5 interest rates.

6 [9:41 a.m.]

7 There are specific factors such as low
8 demand for electricity causing surplus capacity and the
9 way in which that is causing pressure on electricity
10 rates. Those are a different set of factors, but they
11 may both be associated with the overall economic
12 situation that we are in.

13 Q. Yes.

14 A. They are both associated with the
15 overall economic situation we are in.

16 Q. And I am suggesting to you that
17 exactly the same economic factors are going to apply,
18 some might say in reverse, when times are good, that
19 Ontario Hydro will want those or may want that supply
20 from non-utility generation and for the very reason
21 that Ontario Hydro may want them they will not be
22 available or they will be more expensive because NUG
23 producers will have other people to sell to, they will
24 have other things they can do, they will be in other
25 places.

1 Does that not follow the same as the
2 commercial office market: when you want to buy them
3 they will be much more expensive?

4 A. I think you can't take quite that
5 simple a view of things, and the example I will point
6 to is that if you go to the last economic slowdown in
7 Ontario, which was the early 1980s, then according to
8 your thesis that would have been a good time for NUG
9 producers, and it was actually a bad time for NUG
10 producers because during that economic slowdown
11 certainly the price of natural gas was very high and I
12 believe also that the interest rates were quite high
13 through that period, too.

14 So I don't think you can necessarily say
15 that everything moves in synchronism all in one
16 direction and then all those factors reverse in another
17 time. Each economic cycle tends to have its own
18 characteristics, and I am not an economist, and I
19 wouldn't want to predict those things. But I have seen
20 these things change.

21 Q. Well, I agree with you, but it may
22 occur then, that just when Ontario Hydro may want NUGs
23 for the reasons I have described, because demand is
24 high and economic activity is booming, they may not be
25 available for those reasons or they may be very much

1 more expensive?

2 A. They may be more expensive for those
3 reasons.

4 Q. And that is because your present
5 projections are based upon present conditions, present
6 forecasts and present assumptions which may not be true
7 in those days; right? That seems --

8 A. I wouldn't comment on that, but maybe
9 Mr. Burke wants to add something to that, because I
10 believe that our forecasts are based upon a more
11 thorough review of the future than that.

12 MR. BURKE: A. Yes, the economic
13 forecast recognizes a strong economic recovery. We
14 have growth in Ontario of 4 to 5 per cent for the
15 period '93 to '95, and we have gas prices coming up to
16 the levels that we believe they will come up to in this
17 recovery.

18 We are trying to anticipate the
19 conditions of a recovery, and in that sense we think we
20 have taken into account the sorts of things you are
21 talking about.

22 Q. And if the projections you have made
23 don't accurately take into account what may happen to
24 gas prices, what may happen to NUG producers who may go
25 elsewhere to find business and you have to pay more

1 than you thought, then the NUGs are not going to be as
2 cheap as you thought. That is fairly evident, isn't
3 it?

4 A. Well, the evidence we have -- the
5 information we have, and it is actually in Exhibit E,
6 is that the risk of shortage on gas supply is not a
7 high one, so that the price of gas while there may be
8 demand factors in the market that bid it up is unlikely
9 to be in short supply.

10 I think the issue then that you must be
11 talking about is the availability of turbines, that
12 sort of equipment, to produce cogenerated power or just
13 straight NUGs.

14 I'm not in a position to comment on how
15 tight that market is ever going to be, but on the gas
16 side of it I don't think there are very many people
17 that believe gas supply will become tight for the
18 purpose of meeting demand in the next 10 years.

19 Q. Well, do you know what has happened
20 to the spot price of gas in 1992 alone?

21 A. I know that there are certain markets
22 where the spot price was extremely low and rose, but
23 the average price of gas sold has not moved up very
24 much yet, and the futures price is not strengthening
25 very much yet.

1 Q. I suggest to you the long-term
2 contracts obviously are in place, but I suggest to you
3 that the spot price of gas in 1992 has gone from
4 somewhere around 1 mcf to about \$3.37 per mcf Canadian
5 in one year.

6 A. There have been some parts of the
7 spot market where bottlenecks have occurred for
8 transportation reasons that can be overcome and in
9 which prices have gone from the very low levels - the
10 base you are talking about is well below the average in
11 the market - to something that is above the average in
12 the market. But forecasters do not expect that that
13 will become the trend.

14 Q. But the numbers that I have given to
15 you are fair numbers, that it has more than tripled,
16 the spot price of gas in 1992?

17 A. Well, frankly, sir, the most I have
18 ever heard anybody claim a change in the spot market is
19 70 per cent, but maybe they didn't find the particular
20 corner of the market you did. There has definitely
21 been an increase in the spot market price.

22 Q. Well, I am reading from the OGJ
23 Newsletter of January 11th, 1993 that:

24 The Alberta Natural Gas Marketers
25 reported a steep jump in spot prices at

1 year end triggered by cold weather and
2 product shortages. Prices in the spot
3 market hit \$3.37 Canadian mcf December
4 28th as supplies ran short. Prices
5 during 1992 averaged a little more than
6 \$1.00 per mcf.

7 A. I don't keep up with all of the
8 literature on that, but my understanding is that within
9 Alberta there were shortages for delivery purposes.
10 This was not a continental-wide phenomenon that your
11 article is referring to. But I haven't got the
12 material before me, so I can't tell.

13 Q. Just to turn to one other subject
14 before I get to my final subject, and that is the
15 situation at Darlington.

16 There was some mention, I believe by you,
17 Mr. Snelson, about the present status of Darlington. I
18 am looking at the latest, I hope, production from
19 Darlington - apparently they issue them to the public;
20 you can get them by being on the subscriber list - that
21 tells us that Units 1 and 2 are at or extremely close
22 to 100 per cent power. Is that a fair statement?

23 MR. SNELSON: A. The situation may
24 change from day to day, but over the last few weeks or
25 so that is my understanding, yes.

1 Q. Unit 3, the reactor is at 49 per cent
2 power today and will be at full power by the end of the
3 year?

4 A. Well, that refers to today. I don't
5 know what 'today' is on that, and I don't follow these
6 things from day to day. But Unit 3 is in an advanced
7 stage of commissioning.

8 Q. Well, this is December the 14th,
9 1992, and it says everything is going well in
10 commissioning tests in relation to Unit 3.

11 A. What I have heard - and I am not a
12 primary source on that - would support that general
13 idea, yes.

14 Q. And with respect to Unit 4 the
15 reactor is expected to start up in late February with
16 first electricity produced in March and full power by
17 April.

18 A. It appears reasonable. As I say, I
19 haven't got all the details in front of me.

20 Q. Now, I want to then turn to page 18
21 of Exhibit 937, and Mr. Poch in his examination
22 clarified that the line in the CO(2) chart - these are
23 the emission charts for SO(2), NOx and CO(2) - that the
24 line for the DSP Update in the CO(2) charge is the
25 Update fossil, and I just wanted to confirm that the --

1 I don't believe it was on the record, but confirm that
2 lines for the Update are in each case the Update fossil
3 in each of the diagrams.

4 MR. DALZIEL: A. Yes.

5 Q. Secondly, am I correct that what has
6 happened here is that you have merely put the Update
7 fossil line as we found it in the Update on to this
8 chart using the load growth that was assumed in the
9 Update?

10 A. Yes.

11 Q. So that although we have them on the
12 same chart, in fact the one line for the Update applies
13 to a completely different load growth than the lines
14 for the illustrative plan, which is the load growth now
15 projected as of December, 1992?

16 A. Yes.

17 Q. So we have got apples and oranges in
18 terms of load growth on the one chart?

19 A. There are two different load
20 forecasts underlying the emissions.

21 Q. Right. Now, I take it that you could
22 have taken the equipment, the machines, the generation
23 stations called for in the Update, could have backed
24 out what was appropriate to meet today's load forecast
25 in terms of shutting down fossil stations as you do in

1 the illustrative plan, and come up with something that
2 would test what does the Update really do as against
3 the present plan, the December, 1992 plan in terms of
4 these three phenomena?

5 A. I don't think that would be a very
6 straightforward exercise.

7 Q. Well, how do we get a comparison of
8 what really is occurring in today's environment in
9 relation to comparing the Update to what you are now
10 planning as of December, 1992? I mean, to compare them
11 as against different load growths isn't very
12 profitable, it seems to me.

13 MR. SNELSON: A. Well, it seems to me
14 that in both cases we are comparing what is our current
15 median expectation of load and the generation planned
16 that would go with that load and showing the resulting
17 carbon dioxide emissions.

18 So I think you have got a consistent set
19 of assumptions as of the DSP Update, which were
20 produced as one set of CO(2) emissions, and you have
21 the current latest information that we have available
22 and what does that show in terms of CO(2) emissions.
23 You start mixing together yesterday's load forecast
24 with today's plan, then you have got two things that
25 just don't go together.

1 Q. Well, I think that is exactly what I
2 think you have done, but leave it for others to make a
3 conclusion on that.

4 Is it possible to put the Update through
5 the computer shutting down the fossil plants as you do
6 in the illustrative plan where necessary? Is it
7 possible to do that? Nuclear, fossil and enhanced?

8 A. Well, of course, many things are
9 possible, but to make any sense you have to have a load
10 forecast put together with a plan that is designed to
11 meet that load forecast.

12 You start to have a -- and I'm not sure
13 quite whether you are asking for a new load forecast
14 and an old plan or an old load forecast and a new plan.
15 But either one puts together two things that are
16 essentially inconsistent.

17 Q. Well, let me put it this way, sir. I
18 take it that if the load forecast was as projected in
19 the Update, then the line for the illustrative plan
20 would be much higher than it is shown on these charts?

21 A. I think we would have to go back to
22 compare what was the primary load forecast at the time
23 of the Update and what is the primary load forecast
24 now, and there is apparently a comparison on attachment,
25 C of the two load forecasts in that time period.

1 In point of fact - and this is
2 coincidence to some degree - if you look at page 41,
3 table 1.5.1.2, and the columns towards the right-hand
4 side have got a heading "Annual Energy in
5 Terawatthours", and for 2010 there is almost no change
6 actually in load forecast.

7 [9:55 a.m.]

8 The energy forecast is currently 187.82,
9 and at the time of the DSP Update it was 188.02. So we
10 are talking about a difference of one-tenth of a per
11 cent. And again in the year 2015 the difference is a
12 little over 1 per cent. So it does happen by
13 coincidence that we have ended up with about the same
14 energy production.

15 Q. Well, in the early years and that
16 would be more relevant to page 18 when you have the
17 illustrative plan lower, you are going to have higher
18 emissions if you have the load forecast that was
19 projected in the Update.

20 MR. DALZIEL: A. That's correct, and I
21 pointed that out in my direct evidence when discussing
22 this figure, that in the years up to the year 2000,
23 that was one of the reasons why the emissions were low.

24 Q. So what we are seeing here is that if
25 Ontario Hydro is incorrect in its load forecast, and if

1 load is much greater or greater than it has forecast,
2 and if it proceeds along using the plan that is
3 represented on page 18, the emissions you are going to
4 are going to be greater than shown on page 18 of
5 Exhibit 937?

6 A. It would depend what additional
7 emission control equipment might be installed, but
8 assuming there were no changes in that area, then the
9 emissions would be higher.

10 Q. Based upon what you are now
11 recommending to this Board, cutting back on the
12 emission control from what was projected in the Update
13 and shutting down fossil and then bringing the fossil
14 back up when you need it, which is basically what
15 underlines page 18, Mr. Dalziel?

16 A. No, we are not recommending cutting
17 back on the emission controls. We have put forward an
18 illustration of the extent to which the reduction in
19 spending on emission controls is being contemplated and
20 the consequent emission control facilities that would
21 correspond to that.

22 The emission control strategy is under
23 review at this time within Ontario Hydro to determine
24 whether the emission controls will be deferred to the
25 extend that has been indicated.

1 Q. Well, whether they are under
2 consideration or not, as represented in Exhibit 796 and
3 Exhibit 937, you are calling for a cutback in those
4 documents from the emission controls called for in the
5 Update?

6 A. There is a reduction in the emission
7 controls in these more recent exhibits, yes.

8 Q. And if that plan proceeds and your
9 present plan is, the second part of my question was,
10 you intend to bring fossil units back up and run them
11 harder in the later part of the plan?

12 A. Yes.

13 Q. So if you do both of those things,
14 particularly if you have to run your fossil units
15 harder and not take them down, if demand exceeds what
16 you expect, then the lines for the illustrative plan on
17 page 18 are going to be higher?

18 A. Yes.

19 Q. I suggest to you that if the upper
20 load growth is achieved or even the median upper, you
21 are going to exceed or you may well exceed the limits
22 shown on these pages?

23 A. And as I said earlier, if you don't
24 make any changes to your emission control strategy,
25 yes.

1 Q. Yes. So that unlike the situation,
2 we were talking about the risk of the upper load growth
3 occurring, you have a response portfolio that will cost
4 you some money and some may say is a wrong strategy in
5 many ways, but at least you can bring those units
6 on-stream, but the risk that you have if load growth
7 exceeds what you portray or is behind page 18 is that
8 you may exceed the allowable limits.

9 MR. SNELSON: A. We have said that we
10 are still relying upon the response portfolio given in
11 Exhibit 452, which was in the DSP Update as an
12 indication of the types of flexibility and the types of
13 responses that we would have to certain things
14 happening.

15 If you look at figure 9-7, which is the
16 sample response portfolio of Exhibit 452, then there
17 are responses in there to situations that require more
18 acid gas control. There are responses in there such as
19 shifting to lower sulphur fuels, advancing gas-fired
20 generation in the loading order, enhancing scrubber
21 effectiveness.

22 So changing the controls as Mr. Dalziel
23 has indicated, is a likely response to a greater need
24 for acid gas control. If you need more acid gas
25 control then maybe we have to provide it, and it can be

1 provided by fuel switching, it can be provided by
2 putting more controls on existing plants, or it can be
3 provided by acquiring new sources of generation or new
4 sources of demand management with relatively little
5 emissions. So there are a variety of responses that
6 will be incorporated as required to meet acid gas
7 emission targets.

8 Q. That may be. But just taking one
9 example. If you bring on non-utility generation,
10 that's not going to help you on your CO(2) emissions as
11 a total package; is it?

12 A. If non-utility generation is brought
13 on at a high capacity factor to provide capacity and
14 also to replace some coal-fired energy, then there may
15 be some net reduction in CO(2) emissions.

16 Q. But you are still going to be
17 producing CO(2) from NUGs. We have got diagrams that
18 show us in Panel 10 that fact.

19 A. Yes. And the point that I am
20 pointing out is that if some of that non-utility
21 generation replaces control-fired generation, then per
22 unit of kilowatt generated or substituted, then there
23 is a net reduction in CO(2).

24 Q. Well, is it not evident, Mr. Dalziel
25 and Mr. Snelson, that one of the avenues to reduce the

1 emissions shown on page 18 is nuclear generation, and
2 indeed that's stated in spades in the DSP itself.

3 A. Certainly nuclear generation does not
4 have emissions of sulphur dioxide, nitrogen oxides and
5 the carbon dioxide that contribute to these particular
6 emissions.

7 Q. And the reason that you have put
8 these three out, and continually put these three out in
9 the Update and this document is because these
10 emissions, SO(2), NOx and CO(2) are considered to be
11 the most important from an environmental standpoint by
12 Ontario Hydro.

13 A. I believe the evidence on
14 environmental matters was given, the most definitive
15 evidence was given by Ms. Howes on Panel 10.

16 These are important environmental
17 matters. I hesitate to say they are the most
18 important. The reason we keep using them here is
19 because they are important and they are very much
20 affected by the balance of the system. They are very
21 much affected by the load and capacity balance, by the
22 balance between fossil and non-fossil generation, and
23 how the system is operated, and so we use them as
24 important indicators.

25 Q. If you have higher load growth and

1 you use exactly the standard of emission controls you
2 have now put before this Board in the December 1992
3 documentation, and you follow the principle of bringing
4 your fossil units on to meet a higher demand, then it's
5 certainly possible that you are going to exceed these
6 limits shown on page 18, if that's your strategy and
7 you don't bring on any other emission controls?

8 A. Well, I think it's consistent with
9 our strategy to say that load goes up, emissions go up
10 and we don't take some action to try to respond. But
11 in the hypothetical circumstance you have given, yes,
12 of course emissions go up.

13 Q. Can you tell me, sir, at a high load
14 growth and can you calculate for me at a high load
15 growth, assuming that scenario where the illustrative
16 plan goes to on SO(2), NOx and CO(2), can you calculate
17 that for me and trace a line for us using the same
18 emission controls that you are proposing in Exhibit 796
19 and using your fossil units as you propose to supply
20 the extra demand?

21 MR. DALZIEL: A. During Panel 10 we
22 described the case for upper load growth with no
23 approvals, and there was the case summary in Exhibit
24 646 under Attachment E. It provided some information
25 on the emissions, and it showed that the acid gas

1 emission limits would be met, but we were not
2 constraining that case to what I think you are
3 suggesting, that you not add or you not respond with
4 environmental controls. In that case, we were
5 responding with environmental controls in order to
6 ensure that the acid gas emission limits were being
7 met.

8 Q. Yes, I know that. You have cut back
9 on some of your environmental controls as proposed in
10 the December 1992 plan, and I want to know what that
11 plan, if it were considered appropriate by this Board,
12 absent any changes in emission controls, but using your
13 strategy of meeting new or higher demand with fossil,
14 will result in terms of these lines on page 18. Can
15 you do that for me?

16 A. Well, it's a calculation that hasn't
17 been done.

18 Q. Is it a difficult one to do?

19 A. I think it involves another whole
20 computer simulation. It's not a straightforward
21 exercise. It's not a one or two day task.

22 THE CHAIRMAN: Am I right you haven't
23 done an upper forecast for the plan you have got in
24 front of us?

25 MR. DALZIEL: We have not run a case with

1 the upper load forecast of December '92.

2 MR. HEINTZMAN: Q. Can you run it for me
3 in terms of the emissions?

4 THE CHAIRMAN: Don't you have to
5 determine the upper growth first before you do that?

6 MR. HEINTZMAN: They have got the upper
7 load growth.

8 THE CHAIRMAN: Have you?

9 MR. DALZIEL: We have the upper load
10 forecast as described in the attachment C of Exhibit
11 796.

12 MR. HEINTZMAN: Q. Page 129 and 130.

13 MR. DALZIEL: A. Yes. But we have not
14 developed a case for that upper load forecast.

15 Q. Well, I would ask that similar lines
16 be traced as are shown on page 18 for the median to be
17 done for the upper, using the same facilities, same
18 emission controls and using the same fossil units that
19 you project using here to replace or to handle
20 additional demand.

21 MR. B. CAMPBELL: Well, Mr. Chairman, I
22 am unwilling to give that undertaking primarily because
23 it contains within it a whole set of what in my
24 submission are -- it's clear that there is no realistic
25 possibility that the conditions that my friend puts on

1 that case are anything remotely the conditions that
2 Ontario Hydro would contemplate. If there was a
3 material change in load growth as you have seen it
4 develop, then a plan to fit that, and it will not --

5 THE CHAIRMAN: You are straying into
6 argument, aren't you, Mr. Campbell?

7 MR. B. CAMPBELL: Well...

8 THE CHAIRMAN: What they would or would
9 not do with data is something that may be a matter for
10 argument.

11 MR. HEINTZMAN: If Ontario Hydro had
12 before us a plan showing what it will do to meet the
13 upper load growth by bringing on various technologies
14 or emission controls, fine, I would say, well, run that
15 one, too, but they haven't. The only one they have put
16 before us is this one.

17 MR. B. CAMPBELL: With respect, Mr.
18 Chairman, the body of evidence before you includes
19 plans which are consistent with an upper load growth
20 which is virtually unchanged in this forecast in the
21 long term. I think we have heard time and time again
22 over the course of Panel 11 that the changes in the
23 primary load, which is the load on Ontario Hydro's
24 system, affect the early years, not the late years.

25 It's been repeated ad nauseum since this

1 panel appeared. And there are a variety of upper load
2 growth plans that are in the body of evidence before
3 you, and I would point my friend to those. They
4 indicate the kind of response that Ontario Hydro would
5 contemplate and he has all those numbers. The load
6 forecast in the long term as you have seen has not
7 materially changed.

8 THE CHAIRMAN: Well, I think you have
9 said you were prepared to give the undertaking.

10 MR. B. CAMPBELL: No, I said I was not
11 prepared.

12 THE CHAIRMAN: I thought you were
13 prepared to give it.

14 MR. B. CAMPBELL: Absolutely not, Mr.
15 Chairman.

16 THE CHAIRMAN: I thought you opened up
17 that you were prepared to give it. Did I not hear you
18 correctly?

19 I thought you said you were prepared to
20 give it because it was so way out that it wouldn't
21 matter anyway.

22 MR. B. CAMPBELL: No. My point was I was
23 not prepared to give it because it was so way out and
24 in addition --

25 THE CHAIRMAN: My colleagues say I didn't

1 hear it correctly. I'm sorry.

2 MR. B. CAMPBELL: My additional point is
3 of course that given the changes in the long-term load
4 forecast, as we have heard time and time again the load
5 placed on Ontario Hydro in the long term is not
6 materially different. My friend has the indication he
7 needs. He has the kind of response that Ontario Hydro
8 would be looking at.

9 MR. HEINTZMAN: Well, my position will be
10 at the end of the hearing that if Ontario Hydro does
11 not produce an upper load forecast emission plan that
12 they are taken to admit something contrary to their
13 interests, because, I mean, surely in an environmental
14 hearing when somebody is saying you should plan to the
15 upper, we should know what it's going to result in. If
16 he wants to put forward two plans or two page 18s, B
17 and C or A and B to show what it will be under my
18 proposition and under one that he wants to have thought
19 up, fine.

20 But I submit, Mr. Chairman, at the end of
21 this hearing if you are in a situation where you don't
22 have a page 18 for the upper load forecast, you will
23 have to take that as an admission contrary to Ontario
24 Hydro's interest.

25 MR. B. CAMPBELL: What I am saying, Mr.

1 Chairman, is that you and everyone else in this hearing
2 has that information already. Upper examinations were
3 done at the time of Panel 10 and the load forecast has
4 not changed in any significant way over the long term
5 with respect to that matter. So that any differences
6 we are talking about are purely in the short term
7 during the period of capacity surplus.

8 MR. HEINTZMAN: I take it Mr. Campbell
9 didn't have to produce 18, page 18 then for the median
10 either, because we could have found it somewhere in the
11 evidence somewhere as to what it really is.

12 THE CHAIRMAN: I guess we will leave it
13 at that.

14 MR. HEINTZMAN: Q. Now, if you turn to
15 page 18 to the CO(2) emissions, the dotted line, as I
16 understood it from the earlier evidence, the dotted
17 line going to the right, is a so-called update nuclear
18 case, Mr. Dalziel?

19 MR. DALZIEL: A. The right-hand side of
20 this graph, the dashed line is the illustrative plan
21 with CANDU as the base load supply.

22 Q. Right. Now, if you look back to the
23 Update, the line for CANDU, the nuclear option
24 so-called, although I spent quite a bit of time
25 pointing out to you that it wasn't very nuclear, was

1 below of the limit, the 25 teragram limit, and I am
2 suggesting to you that the reason it's now above is two
3 things: First of all, you may want to refer to Exhibit
4 452A, I think it is, figure 9-6 or C-5. Right?

5 A. I have that, yes.

6 Q. So that using that so-called nuclear
7 case in the Update, even with a higher load growth or
8 somewhat higher in earlier years anyway, you were able
9 to keep the CO(2) below the 25 limit; right? At the
10 end of the plan it goes up for a period of time and
11 then comes down again?

12 A. That's just what I am checking.

13 [10:16 a.m.]

14 The figure associated with the Update
15 that goes out to 2017 was under attachment C in Exhibit
16 646, and after 2010 under the Update nuclear case the
17 CO(2) emissions were close to the 25 teragram possible
18 limit, and then right at the end it was trending
19 upwards.

20 Q. Well, I'm looking at page 9-6 and C-5
21 of Exhibit 452A. Do you have that?

22 A. Yes, and that one ends at 2014. I am
23 just referring to the one that took that out to 2017.

24 Q. Well, it is certainly a good deal
25 lower than the CO(2) emissions on page 18 of Exhibit

1 937.

2 A. Yes, it is lower.

3 Q. And the reason it is lower is because
4 on page 18 of Exhibit 937 you are using your fossil
5 units heavily to produce generation.

6 A. Well, it would be lower for three
7 reasons, and one of them is there is a slightly
8 difference in the primary load forecast. The other
9 reason is the one that you have given, that the
10 existing fossil units are being relied on to provide
11 more energy in that time period. And the third reason
12 is the absence of the Manitoba Purchase.

13 Q. Yes. And would another reason be the
14 prevalence of CTUs on your system as we discussed
15 yesterday, that you have got a heavier component of
16 CTUs, something over 40 per cent of new generation?

17 A. I don't think that would be a
18 significant contributing factor. I think the greater
19 use of the existing system would outweigh that
20 consideration.

21 Q. But certainly by adopting a nuclear
22 program you could bring your CO(2) emissions down below
23 or at least in the vicinity of the 25 teragram limit?

24 A. A greater reliance on nuclear can
25 achieve that, yes.

1 Q. And the 25 teragram limit isn't a
2 reduction to 60 per cent of 1990 limits as many have
3 proposed, is it.

4 A. Sorry, it isn't a reduction to which?

5 Q. We have heard discussions of limiting
6 CO(2) emissions to 60 per cent of present emissions or
7 1990 emissions. You have heard about that?

8 A. Well, I'm trying to recall what Ms.
9 Howes on Panel 10 would have spoken to. I am aware of
10 two ways in which that limit has been defined, but it
11 doesn't include that one you have just described.

12 Q. Well, the 25 teragram isn't calling
13 for a reduction down to 60 per cent of something we had
14 a number of years ago, is it?

15 MR. SNELSON: A. The definition of the
16 25 teragram limit is given in Exhibit 452, and it
17 hasn't changed. And I am in Appendix C to Exhibit 452,
18 and it is the second page of that appendix, which
19 doesn't appear to be numbered. And I will read what it
20 says, that -- and I will just read the whole paragraph:

21 At the 1988 Changing Atmosphere
22 Conference in Toronto a target reduction
23 of 20 per cent reduction from the 1988
24 levels of CO(2) emissions by the year
25 2005 was proposed. However, in 1990 this

1 target was modified to stabilizing
2 national emissions of CO(2) and other
3 greenhouse gases at 1990 levels by the
4 year 2000. This would translate into an
5 emissions level of about 25 teragrams per
6 year for Ontario Hydro.

7 Q. Right. So it doesn't translate into
8 a 60 per cent reduction of CO(2).

9 A. That is correct.

10 Q. Right. Now, I would like to then
11 turn to the statements made by Mr. Strong on this
12 issue. Do you have the documents from the Rio
13 conference that I have handed out to you? And if the
14 Board could be handed these documents.

15 THE REGISTRAR: Which one is that, Mr.
16 Heintzman?

17 MR. HEINTZMAN: I'm sorry, could we make
18 the document entitled "Statement by Maurice F. Strong,
19 Secretary General, United Nations Conference on
20 Environment and Development, Rio de Janeiro, June 14th,
21 1992", as the next exhibit?

22 THE REGISTRAR: That will be 1045.

23 ---EXHIBIT NO. 1045: Document entitled "Statement by
24 Maurice F. Strong, Secretary General,
25 United Nations Conference on Environment
and Development, Rio de Janeiro, June
14th, 1992".

1 THE CHAIRMAN: Thank you.

2 MR. HEINTZMAN: Q. And let's start with
3 that.

4 If you turn to the bottom of the first
5 page of this document, these are excerpts from this and
6 we have the full document available if anybody wants it
7 or needs it. At the bottom of the page Mr. Strong --
8 who is now the president of Ontario Hydro or about to
9 be?

10 MR. SNELSON: A. He is the chairman of
11 Ontario Hydro.

12 Q. Chairman. And he says in June of
13 1992 at this conference -- you are aware of this
14 conference are you, Mr. Snelson? I guess it is the
15 largest environmental conference ever held in the
16 world?

17 A. I am aware that the conference was
18 held, yes.

19 Q. Yes. And he says at the bottom of
20 the page:

21 Stabilizing the gaseous composition of
22 the atmosphere is clearly the most urgent
23 problem we face in the 1990s. Yet the
24 agreement signed here sets neither
25 targets nor timetables. You must now act

1 quickly to bring the climate convention
2 and its protocol in line with what
3 scientists are telling us that carbon
4 emissions must be cut by at least 60 per
5 cent just to put the global warming trend
6 on hold. It is too late for protracted
7 discussions and delay.

8 You are aware of that as being Mr.
9 Strong's view on the subject?

10 A. I wasn't aware of that until I read
11 this document, and this is what he said in this
12 location.

13 Q. Yes. But I take it that the present
14 December, 1992 plan doesn't achieve that objective.

15 A. That is correct.

16 Q. And then the next document to be
17 handed up, the "United Nations Conference on
18 Environment and Development", again at Rio de Janeiro
19 in June of, 1992, and again it is excerpts.

20 THE REGISTRAR: That will be given number
21 1046.

22 ---EXHIBIT NO. 1046: Excerpts from document entitled,
23 "United Nations Conference on Environment
24 and Development", at Rio de Janeiro,
June, 1992.

25 MR. HEINTZMAN: Q. At page 52 Mr. Strong

1 said:

2 Over the next 20 years more than one
3 quarter of the earth's remaining species
4 may become extinct and in the case of
5 global warming the Inter-Governmental
6 panel on Climate Change has warned that
7 if carbon dioxide emissions are not cut
8 by 60 per cent immediately the changes in
9 the next 60 years may be so rapid that
10 nature will be unable to adapt and man
11 incapable of controlling them.

12 That was Mr. Strong's view on that occasion?

13 MR. SNELSON: A. I can't do any more
14 than confirm the words on this page. I wasn't in Rio,
15 and I haven't read all the documents.

16 Q. And do you have any reason to
17 disagree we that, those statements of Mr. Strong?

18 A. Ontario Hydro's position on carbon
19 dioxide was explained by Ms. Howes on Panel 10. She
20 was the expert witness on that. I haven't anything to
21 add to her comments.

22 Q. And the last document, if we could
23 look at, is Ontario Ministry of Energy's response to
24 these initiatives at Rio de Janeiro, if that could be
25 handed out, dated September the 3rd, 1992, and marked

1 as the next exhibit.

2 THE REGISTRAR: That will be No. 1047.

3 ---EXHIBIT NO. 1047: Ontario Ministry of Energy's
4 response to initiatives at Rio de
Janeiro, dated September 3rd, 1992.

5 MR. HEINTZMAN: Q. And attached to it,
6 to the letter, is the publication of the Federal,
7 Provincial and Territorial Advisory Committee on
8 Climate Change. Do you see that, Mr. Snelson?

9 MR. SNELSON: A. Yes.

10 Q. And are you aware of this publication
11 of the Ministry of Energy and this global warming
12 report?

13 A. Not these specific documents, no.
14 Until I read this last night, no.

15 Q. To put this in context, when we look
16 at page 18 of Exhibit 937 what we see is reduced
17 emissions due to reduced demand. That is basically
18 what we see.

19 A. It is partially due to reduced
20 demand. It is partially due to the energy production
21 coming in from Darlington.

22 Q. Coming from...?

23 A. Darlington.

24 Q. From Darlington, shutting down the
25 fossil plants?

1 A. Yes.

2 Q. All right. But insofar as it comes
3 from reduced demand I am suggesting to you that what
4 the Ontario government and this report says that that
5 is a fallacious approach to looking at emission
6 control.

7 A. I would also add that other factors
8 bringing it down are the demand management and the
9 non-utility generation.

10 Q. Well, page 18 is merely transposing a
11 new demand requirement on the system and doing nothing
12 more than that, I suggest to you -- and by the way, can
13 you tell me what component of reduction on page 18 of
14 Exhibit 937 is due to that as opposed to other factors?

15 A. I'm afraid we don't have an estimate
16 of that directly.

17 Q. I would suggest to you it is a very
18 substantial portion of the reduction in emissions are
19 due just to reduced demand, particularly in the early
20 years when the line for the illustrative plan is below
21 the Update line; is that not fair?

22 A. Well, both the Update and the current
23 plan have in them a variety of measures for changing
24 the demand and supply options and the balance of the
25 system, many of which have the effect of producing

1 electricity or saving electricity with relatively
2 little incremental emissions.

3 So the net effect of bringing emissions
4 down from where they otherwise would have been is due
5 to a whole variety of factors where we are managing the
6 system to keep our emissions low.

7 Q. But it is stated in Exhibit 796, and
8 others have gone before me that have brought this point
9 out, and you have said it in your examination in chief,
10 that one of the principal reasons that the emissions
11 are down and that production is down is to the
12 continuation of depression, further declines in load,
13 further reductions in load forecast. I am reading from
14 Exhibit 796.

15 A. Yes. And that is a reason for two
16 things happening. Emissions would be lower and
17 emission controls have been deferred. So there have
18 been two actions taken since the Demand/Supply Plan
19 Update with respect to emissions.

20 The load is down, emissions will be down,
21 you don't need as much emission controls. So that
22 effect has been incorporated into the latest
23 projection.

24 Q. Well, I don't know why this point is
25 causing you difficulty.

1 Page 15 of 796 says:

2 The projections of CO(2) emissions
3 were lower to about the year 2000
4 compared to the DSP Update nuclear and
5 comparable thereafter. Emissions were
6 lower as the fossil system was used less.
7 This is the result of lower load
8 forecasts and a larger amount of
9 purchased NUGs compared to the DSP
10 Update.

11 A. You have two reasons in there. You
12 have lower forecast and more NUGs.

13 Q. And I am suggesting to you that the
14 overwhelming reason is because of the lower forecast.

15 MR. DALZIEL: A. It is due to both
16 factors. We haven't determined the proportions that
17 could be allocated to each of those.

18 Q. Well, I suggest to you that what this
19 document is telling us, Exhibit 1047, is that insofar
20 as you are telling this Board that, oh, well, we have
21 got reduced CO(2) emissions or other emissions because
22 look at our plan, the lines are now lower, and that
23 that is due to lower economic activity and lower
24 forecasts is a fallacious reason for going that way
25 with emission controls, to say, well, we are going to

1 have less because we have got less activity.

2 MR. SNELSON: A. I think we are
3 confusing sort of short-term effects and long-term
4 effects.

5 The short-term reduction in load does
6 have an impact on emissions and has had the impact on
7 emission controls that we have described.

8 As you get out to the longer-term
9 situation where load and capacity comes back into
10 balance then you do have to provide the emission
11 controls or the sources of generation of demand
12 management without emission or less emissions, you do
13 have to provide those to meet incremental load.

14 Q. But you haven't provided for those in
15 this plan that you have put forward. You have provided
16 certain emission controls and no others in this present
17 December, 1992 plan.

18 A. Yes, I think Mr. Dalziel has
19 described the emission controls that are in the plan,
20 and in many cases it is deferral of emission controls
21 rather than total cancellation.

22 Q. Well, let's read the document at page
23 3 of the report where it says:

24 Carbon dioxide from burning of fossil
25 fuels is the dominant human-induced

1 contributor to the greenhouse effect.

2 And in dropping down a sentence:

3 A common thought has been that overall
4 CO(2) emissions over time is a sound
5 indicator of progress in the efforts of a
6 jurisdiction to reduce global warming.
7 This is not the case.

8 As an example, energy use and CO(2)
9 emissions in Ontario have dropped by more
10 than 8 per cent since 1989. Although
11 several initiatives in Ontario to improve
12 energy efficiency have been adopted since
13 1989 decreases in energy use and CO(2)
14 emissions in the last two years have been
15 the result of unacceptable economic
16 performance, large losses in jobs and in
17 economic output, not of efforts to reduce
18 global warming.

19 What has happened in the last two
20 years is not progress to deal with the
21 threat of global warming. Progress
22 consists of actions to change the future
23 pattern of energy use.

24 Emissions of CO(2) must be related to
25 economic performance in order to assess

1 whether genuine progress is being made to
2 improve energy efficiency and to reduce
3 the energy use per dollar of GDP, which
4 is usually called the energy intensity of
5 the economy.

6 So I suggest to you that the Ministry
7 responsible for energy in this province is saying as a
8 matter of policy it is improper to account for
9 reduction of CO(2) merely because of decreased economic
10 activity and decreased use of fossil fuel because of
11 that.

12 That is the position, isn't it?

13 A. Well, I hesitate to interpret the
14 position of the Ministry of Environment. Is this
15 Environment -- no, Ministry of Energy.

16 Q. Yes.

17 A. But--

18 Q. Well, do you have any --

19 A. --I do point out that we are not
20 projecting and saying the economic activity in Ontario
21 should be lower so that we can achieve control of
22 carbon dioxide and other global warming gases.

23 What we are saying is - and Mr. Burke can
24 talk to this - is that there is a projection of what
25 the economic activity will be in Ontario, and that

1 recognizes the reality that we are in an economic
2 slowdown now, and it projects a recovery of the economy
3 to almost the levels that were previously projected
4 over time. And we have merely shown the effect of that
5 scenario, which is the most likely scenario in our
6 minds, on the carbon dioxide and other emissions. It
7 is a very simple - very straightforward, conceptually -
8 exercise.

9 Q. And the second thing that this
10 document is saying, is it not, sir, that CO(2)
11 emissions must be related to economic performance, i.e.
12 if you put on page 18 the same load growth, assuming
13 the same economic conditions, and then determined which
14 plan was the best you would then have real progress,
15 i.e. actions to change future energy patterns based
16 upon consistent economic assumptions; right?

17 MR. BURKE: A. Well, as Mr. Snelson just
18 said and I indicated in my direct evidence, the
19 economic forecast that we have underlying the load
20 forecast recovers to within two per cent of the value
21 that we had previously forecasted in the DSP Update for
22 the year 2015.

23 [10:35 a.m.]

24 So I agree with what Mr. Snelson said, we
25 have largely returned to the previous economic growth

1 path in this load forecast.

2 Q. In the interim you have projected and
3 utilized for your emission controls dramatically
4 different economic conditions for your latest
5 projection than did you particularly for the DSP and
6 also for the Update; right?

7 MR. SNELSON: A. I think we have tried
8 to recognize reality, that we are in a recession and we
9 have done the projection of what is the most likely, in
10 our view, path that conditions will follow.

11 Q. Using different economic scenarios
12 for that purpose in each of those emission projections;
13 right?

14 A. Each emission projection is based
15 upon the conditions that were considered to be median
16 forecasts at the time that they were done.

17 MR. HEINTZMAN: Those are my questions,
18 Mr. Chairman.

19 THE CHAIRMAN: Thank you, Mr. Heintzman.

20 Mr. Mattson, you are next, but we will
21 take the break now and come back in 15 minutes.

22 THE REGISTRAR: Please come to order.
23 This hearing will recess for 15 minutes.

24 ---Recess at 10:37 a.m.

25 ---On resuming at 11:04 a.m.

1 THE REGISTRAR: Please come to order.

2 This hearing is again in session. Please be seated.

3 THE CHAIRMAN: Mr. Campbell?

4 MR. B. CAMPBELL: Mr. Chairman, there is
5 one matter I would just like to place on the record so
6 that there can be no misunderstanding in the future.

7 Mr. Snelson -- let me my backup.

8 From time to time various intervenors in
9 this hearing also make submissions, I will call it
10 that, on various issues directly to Ontario Hydro, and
11 that has happened in a case recently with CEG, I make
12 no complaint about that, they let their views be known
13 on various to Hydro's senior management. That, as in
14 the normal course of events, sometimes precipitates
15 meetings, and Mr. Snelson and other members, various
16 members of the panels are obviously part of those
17 meetings.

18 There is one meeting later today at four
19 o'clock which Mr. Snelson has been scheduled to attend
20 for some time in the expectation that this panel would
21 be over. It has to do with some submissions to Ontario
22 in connection with various issues which are pertinent
23 in this hearing. I have spoken to my friend, Mr.
24 Starkman who has said he sees no problem in Mr. Snelson
25 attending that meeting and discussing those issues.

1 I, in this circumstance prefer, however,
2 that that be known generally and not just by private
3 arrangement. And if the Board had any objections to
4 that or any other parties, I would like to know now,
5 not later.

6 THE CHAIRMAN: No, there is no problem
7 about that.

8 MR. B. CAMPBELL: Thank you, Mr.
9 Chairman.

10 Mr. Snelson is, as are all the witnesses,
11 well aware of the rules that apply to cross-examination
12 and he will engage in a discussion with those in mind.

13 THE CHAIRMAN: Mr. Mattson?

14 MR. MATTSON: Thank you, Mr. Chairman.

15 Mr. Chairman, we have provided you with a
16 small package of documents numbered pages 1 through 9.
17 Some of this material no longer will be referred to,
18 but I would like to put it in now for ease of reference
19 during the course of cross-examination.

20 THE REGISTRAR: That will be No. 1048,
21 Mr. Chairman.

22 THE CHAIRMAN: Thank you.

23 ---EXHIBIT NO. 1048: Package of material submitted by
24 Energy Probe.

25 MR. MATTSON: Thank you.

1 CROSS-EXAMINATION BY MR. MATTSON:

2 Q. Good morning, panel. For those of
3 who don't know me, my name is Mark Mattson,
4 I am counsel for Energy Probe.

5 I would like to begin following up on a
6 couple of questions that were asked by counsel for the
7 Coalition regarding the current capacity surplus.

8 In my understanding of the evidence
9 earlier at this hearing, it was that Ontario Hydro was
10 a net importer of power in 1990 and forecast to be net
11 exporters in 1991 and 1992; is that fair, Mr. Snelson?

12 MR. DALZIEL: A. I have some information
13 that indicates that an earlier projection, it appears
14 to be a projection made probably in 1990 or early 1991,
15 that for 1992/92 Hydro would have had on balance a
16 small amount of exports.

17 Q. All right, and that was forecast.
18 And if you could just bring us up-to-date on what the
19 actual situation was with respect to whether Ontario
20 Hydro was a net importer or a net exporter in 1992 and
21 1991.

22 A. In 1991 Ontario Hydro, net imports
23 were 2.2 terawatthours, and net exports were 2.1
24 terawatthours.

25 Q. And in 1992?

1 A. In 1992 the net imports were 2.2
2 terawatthours and the exports were 1.9 terawatthours.

3 Q. So, Mr. Dalziel, despite the fact
4 your evidence that Ontario Hydro has a surplus
5 capacity, you were still net importers in 1992?

6 A. Those numbers would indicate that we
7 were a net importer by .3 terawatthours, and I would
8 expect that those are largely associated with economy
9 transactions that work to the benefit of our customers.

10 Q. All right, I will get to that in a
11 moment.

12 Did the Update affect Ontario Hydro's
13 forecast regarding whether it will be a net importer of
14 power in '93 and 1994?

15 THE CHAIRMAN: The Update, which Update
16 do you mean?

17 MR. MATTSON: The most recent one.

18 THE CHAIRMAN: You mean 796?

19 MR. MATTSON: 796, yes.

20 MR. SNELSON: I think we are operating in
21 different time periods.

22 Exhibit 796 is a planning document
23 looking out quite a distance in the future. The latest
24 projections on imports/exports, how the system is
25 operated are done by the operating branch as part of

1 their normal day-to-day and week-to-week,
2 month-to-month operations.

3 MR. MATTSON: Q. Mr. Snelson, I am just
4 trying to understand the relationship between the net
5 or the surplus capacity that you filed and the changes
6 in that surplus capacity that were indicated on page 15
7 of your overheads, and the relationship between Ontario
8 Hydro's purchases of economy energy, as it was called.

9 I was wondering in 1993 and 1994, despite
10 the fact that there is a capacity surplus, it does not
11 necessarily follow that Ontario Hydro won't be a net
12 importer; is that fair?

13 MR. SNELSON: A. The circumstances that
14 control whether it's to the advantage of our customers
15 in our day-to-day transactions with other utilities,
16 that we buy some days and sell other days, and we
17 sometimes would be buying from one utility and selling
18 to another utility at the same time, all those matters
19 were discussed in Panel 2 and they are not directly
20 related to the surplus capacity situation.

21 Q. During the surplus capacity
22 situation, Mr. Snelson, can you just explain then why
23 Ontario Hydro would be purchasing power from other
24 generators outside the province, for example?

25 A. Well, I believe that a large part of

1 our current purchases are from Manitoba Hydro, they are
2 under the terms of a short-term agreement for the
3 purchase of energy, and that the price is sufficiently
4 low that it is worthwhile buying that power, that
5 energy, and using our own capacity less, and it saves
6 our customers money.

7 Q. So the Update, Exhibit 796, hasn't
8 changed Ontario Hydro's evidence then that it tries to
9 buy the cheapest available power to meet load
10 requirements even if that power is not from its own
11 facilities; is that fair?

12 A. Well, this is with respect to
13 interchange with other utilities on a day-to-day basis,
14 and that takes place with respect to -- in the way
15 which was described in Panel 2, and that hasn't
16 changed.

17 Q. Now, Mr. Snelson, just on the reasons
18 that support those purchases of economy energy, during
19 the time of surplus it's a sensible thing because there
20 is money to be saved by Ontario Hydro in doing so;
21 correct?

22 A. Yes, it is lower cost.

23 Q. And, Mr. Snelson, these lower costs
24 there, they benefit the province, they benefit Ontario
25 Hydro and they benefit Ontario Hydro's customers;

1 correct?

2 A. Well, Ontario Hydro operates its
3 system to try and achieve the lowest cost for its
4 customer. So the benefit to Ontario Hydro and the
5 benefit to its customers are the same.

6 What additional factors you would want to
7 take into account in deciding whether it was a benefit
8 to the province, I think we would have to be more
9 specific in that discussion.

10 Q. Well, Mr. Snelson, would the
11 justification change if this cheaper power, this
12 economy power, was generated in Ontario and not in
13 Manitoba as your earlier example gave, would it even be
14 better if that power was generated in Ontario at that
15 same price?

16 A. The economists would probably tell us
17 it had some additional benefits for the provincial
18 economy, all other things being equal.

19 Q. And, Mr. Snelson, would this change,
20 if an Ontario Hydro customers self-generated that power
21 in Ontario, even during of the forecast surplus
22 capacity, isn't it better for the province and better
23 for the customer, however, there may be a distinction
24 here as to whether or not it's better for Ontario Hydro
25 or not; is that fair?

1 A. If a customer could generate power at
2 less than the costs of fuel for our existing system,
3 then it would be something that we would be interested
4 and would be beneficial as you described.

5 Q. I think my question was not just the
6 cost of the fuel but actually the incremental costs to
7 Ontario Hydro.

8 A. Well, that was the reason I threw in
9 the cost of fuel. The incremental cost to Ontario
10 Hydro during a period of capacity surplus is largely
11 the cost of fuel.

12 Q. So is it fair, Mr. Snelson, that
13 there is a distinction though to be made between, an
14 Ontario Hydro customer self-generates economy power, it
15 can self-generate for the same costs that the power
16 would be in Manitoba that you purchasing and net
17 importing, that the distinction to be made is that it
18 may be good for the Ontario Hydro customer, it may be
19 good for the province generally, but it may not be so
20 good for Ontario Hydro?

21 A. We do buy from customers
22 self-generation at about the same terms and price as we
23 would from Manitoba. That's part of our policies at
24 the moment, it's called at-will purchases, and our
25 operating people do take those purchases when they are

1 available at a price that is advantageous.

2 Q. Mr. Snelson, if they self-generated
3 that power, what if they bypassed - and I will call the
4 middleman - Ontario Hydro altogether?

5 A. I'm sorry, I don't understand the
6 question at the moment.

7 Q. I think we have discussed at this
8 hearing on many occasion the concept of
9 self-generation, and my question was specifically with
10 respect to an Ontario Hydro customer who self-generates
11 economy power and that power therefore is not purchased
12 by Ontario Hydro and then resold.

13 A. You have used the term self-generates
14 economy power. Economy is a description of a type of
15 sale and purchase transaction that we use to and from
16 Ontario Hydro. So I don't know what self-generated
17 economy power is.

18 Q. I apologize. I will call it purchase
19 power.

20 MR. B. CAMPBELL: Just before you call it
21 anything. I am a little unclear, in fact I am
22 completely in the dark as to what way in any respect
23 this arises from the purposes for which this panel is
24 appearing. This would have been reviewed in Panel 2,
25 these issues have been reviewed again. I am not aware

1 of any change that would make this cross-examination
2 pertinent for the purposes of Panel 11.

3 MR. MATTSON: Mr. Chairman, the evidence
4 given by Mr. Snelson has been that Ontario Hydro now
5 discourages municipal utility self-generation, the
6 evidence has been that the reason for that is because
7 there is a surplus capacity and that there are issues
8 of the public power pool that are involved.

9 I am simply getting at the justification
10 for purchasing power during a time of surplus from a
11 generator outside the province versus a self-generator
12 in Ontario, and what distinguishes between the two in
13 terms of meeting Ontario's electricity needs. I think
14 it is relevant not only to the Update but it's also
15 relevant for the purposes of the motion, and Mr.
16 Campbell knows, I have given him notice of what issues
17 I will be discussing at that time.

18 THE CHAIRMAN: Well, the issue of dealing
19 with the municipalities I think has been a subject
20 matter of evidence so far in questions, and I
21 understand that it is a matter of ongoing negotiation.
22 Why don't you direct your questions in that area rather
23 than in the general area which you just went through.

24 MR. MATTSON: Thank you, Mr. Chairman.

25 Q. To finish off this point and so abide

1 by the Chairman's point --

2 THE CHAIRMAN: I didn't mean to cause you
3 any difficulty. I think if you get to the bone of what
4 you are really driving it might make it easy, and Mr.
5 Snelson can then answer those questions.

6 MR. MATTSON: I will, Mr. Chairman. I
7 just want to finish off the surplus issue first.

8 Q. Mr. Snelson, would you agree that the
9 main effect of the forecasted surplus capacity on
10 Ontario Hydro's corporate plans is the rate effect of
11 having to collect revenues to carry the capital cost of
12 the unused capacity?

13 MR. SNELSON: A. I have indicated that
14 surplus capacity, low loads, have contributed to
15 pressure on higher rates as you divide fixed costs over
16 fewer units of sale.

17 Q. Thank you. If I could, Mr. Snelson,
18 I would like to refer to you attachment B of the
19 Exhibit 796, and particularly page 3, which is the of
20 Executive Summary, and paragraph 2. And it reads:

21 During the intervening months as the
22 generating capacity situation was being
23 addressed as part of the business
24 planning process, it was recognized that
25 the challenges facing the Corporation

1 over the decade have intensified
2 markedly, and that a strong response is
3 required to meet them.

4 THE CHAIRMAN: We have lost you. Where
5 are you?

6 MR. MATTSON: I'm sorry. Page 3 entitled
7 the Executive Summary.

8 THE CHAIRMAN: Yes.

9 MR. MATTSON: Paragraph 2.

10 THE CHAIRMAN: Paragraph 2 on page 3?

11 MR. DALZIEL: It's Appendix A of that
12 attachment.

13 MR. MATTSON: Sorry.

14 MR. DALZIEL: There happened to be two
15 executive summaries.

16 MR. MATTSON: I apologize.

17 Q. I think the important passage is the
18 next, so I can continue:

19 These challenges derive primarily from
20 a deterioration in short and long-term
21 outlet for electricity price relative to
22 inflation, resulting from a reduction in
23 the load forecast attributable to reduced
24 economic growth, forecast of lower
25 inflation over the decade, and the

1 prospect for loss of revenues from
2 customers who intend to generate their
3 own electricity or purchase it from third
4 parties.

5 [11:23 p.m.]

6 And my question, Mr. Snelson, is: Is it
7 fair to suggest that this prospect for loss of revenue
8 increases as the rates increase, Ontario Hydro rates
9 increase?

10 MR. SNELSON: A. Yes.

11 Q. And is it fair to suggest that the
12 prospect for loss of revenue increases as the gap
13 between electricity prices and gas prices increase?

14 A. The economics of another party
15 self-generating will look better with higher
16 electricity prices and lower gas prices.

17 Q. Thank you. And then if you look to
18 the Executive Summary of attachment A...do you have
19 that?

20 A. At the risk of getting the wrong
21 Executive Summary, I have one that has a sheet number
22 at the top with a--

23 Q. That's correct.

24 A. --small Roman numeral 1.

25 Q. That's correct. And paragraph 2, and

1 I am specifically reading the second sentence:

2 The recommended approach to managing
3 this surplus which lowers overall capital
4 intensity was shaped by the recognition
5 that the challenge facing the Corporation
6 over the next decade has increased
7 markedly during the intervening months in
8 the form of an unprecedented reaction of
9 customers to the outlook for higher
10 electricity prices in both the short and
11 long term relative to general inflation.

12 And my question arising from that, Mr. Snelson, is: Is
13 this customer or unprecedented customer reaction would
14 this include the customers' intention to self-generate
15 and/or purchase third party power that was mentioned in
16 attachment B?

17 A. Clearly, that is a potential reaction
18 of customers to higher electricity rates, yes.

19 Q. Mr. Snelson, is it fair that when
20 Ontario Hydro is speaking of an unprecedented customer
21 reaction in the course of this panel and
22 cross-examination I think that we can distinguish
23 between two types of reactions. There has been
24 discussion with respect to the first type, which is a
25 customer reaction where the customers complain or

1 grumble a lot because they hate paying more for
2 electricity; is that fair?

3 A. Customers have in a variety of ways
4 made their views about electricity price increases
5 known to us.

6 Q. And the second type, and might I
7 suggest the more serious customer reaction to the rate
8 increases, is the customer who makes plans to stop
9 paying more, such as self-generation, moving out of the
10 province, or purchasing third party power; correct?
11 That is a second type of customer reaction?

12 A. That is a different type of customer
13 reaction, yes.

14 Q. Now, Mr. Snelson, Mr. Shepherd last
15 week earlier in the week asked a number of questions
16 with regard to the total amount of industrial
17 self-generation which has the potential to impact the
18 DSP, and I would like to steer away from that area and
19 move into an area related to the potential municipal
20 self-generation or direct purchase projects that have
21 the potential to impact Demand/Supply Plan.

22 I recognize that on Thursday Mr. Poch
23 requested that you supply him with the number of total
24 projects in megawatts of new municipal power that you
25 are aware of. Is that a fair summary of that

1 undertaking?

2 A. We have given that undertaking.

3 Q. I would just like to follow that up a
4 little bit.

5 The Executive Summary refers to the
6 challenge facing the Corporation increasing markedly
7 during the intervening months. And I take it that this
8 is a reference to the increased frequency that the
9 self-generation of third party power projects are being
10 announced publicly; is that fair?

11 A. The challenge referred to here is in
12 total -- to the total reference to the reaction of
13 customers. The reaction of some customers to propose
14 self-generation is only one part of that. So that
15 statement isn't only referring to that; it is referring
16 to that and other things.

17 Q. All right. But in terms of the
18 'increasing markedly during the intervening months',
19 would that include that there has been an increased
20 frequency with which these projects have been announced
21 publicly; is that fair, Mr. Snelson?

22 A. There have been a number of new
23 projects announced. Increased frequency is a bit too
24 specific, but there have been a number of new projects
25 announced.

1 Q. You, I believe, commented to Mr. Poch
2 on Thursday that you were aware of three of them, the
3 Kingston, something went on in Kingston, and Toronto
4 and Windsor; do you recall that?

5 A. I recall that, yes.

6 Q. How many other projects, Mr. Snelson,
7 are you informally aware of that have been announced?
8 Can you give us any indication as to the numbers that
9 are coming forward?

10 A. I believe that is what the
11 undertaking is to do, and I think it better to wait
12 until we have collected that data and given that
13 undertaking.

14 Q. Panel 10, Mr. Snelson, you and I --
15 it is Volume 160, page 28487, I am looking at around
16 line 14. You and I had a discussion about --

17 A. Sorry. Was that 28427?

18 Q. 28487.

19 A. 87.

20 Q. Yes. You and I had a discussion
21 about the possible project in Windsor, and at line 9
22 you indicated that presently you did allow the
23 municipal utilities to have the right of first refusal
24 for NUG generation in their own service territory, and
25 then you discussed why the situation was under review.

1 Do you see that?

2 You indicated that part of that
3 discussion was your concern as to the sharing of risks
4 and benefits between the customers of the Windsor
5 utility and the customers of the other municipal
6 utilities province-wide.

7 A. I see that, yes.

8 Q. All right. And then I asked you a
9 question about whether the rates offered to the City of
10 Windsor would be below Ontario Hydro's rates. You
11 indicated you weren't sure, and whether the rates to
12 Windsor would be decreased in light if the deal went
13 through and you said you weren't sure.

14 Has that evidence now changed with the
15 Update, Mr. Snelson? Have you had an opportunity to
16 assess the concerns with respect to the risks and
17 benefits of customers of the Windsor utility versus the
18 other municipalities province-wide and whether or not
19 rates would be lower to the participating customers
20 with a third party power?

21 A. I did indicate in my direct evidence
22 that this issue was being reviewed by a task force with
23 Ontario Hydro, Ministry of Energy, and MEA
24 representation, and that the task force have not yet
25 reported, and that is the process that is reviewing

1 policy in this area.

2 Q. Has the right of first refusal for
3 non-utility generation in their service territory been
4 changed, Mr. Snelson, at this point?

5 A. I don't have the specifics, but I
6 believe that effectively it has.

7 Q. That is that the right has been
8 rescinded?

9 A. We are not encouraging municipal
10 utilities to self-generate, and I indicated that in my
11 direct evidence. And so, we are not encouraging that.
12 There may be some circumstances that I don't know of
13 where they still have that. It may be a legal right
14 that they have under some circumstances. I don't know.

15 Q. Mr. Snelson, I am going to ask you a
16 number of questions about this task force a little
17 later in my cross-examination, but just for the record,
18 the three projects that you are formally aware of in
19 Kingston, Toronto and Windsor, those parties have not
20 been invited to the task force; is that fair?

21 A. I don't know.

22 Q. Mr. Snelson, from a planning
23 perspective in putting together the Demand/Supply Plan
24 I'm sure that -- and correct me if I'm wrong, but I'm
25 sure that the intention of customers at this time to

1 move forward with self-generation or third party power
2 purchases, even informally, must be of relevance to
3 you.

4 A. Certainly, the intention of customers
5 to self-generate is of interest.

6 By third party power purchases do you
7 mean customers purchasing power from somebody other
8 than Ontario Hydro? And in that case, if it is load
9 that we would otherwise have supplied, then yes, that
10 is of interest to us, too.

11 Q. Yes. I understood that was what you
12 meant in the Executive Summary as well, in the board
13 memo that I referred to, page 3. That was at
14 attachment B. It was Appendix 1, page 3, where it
15 speaks of purchases from third parties?

16 A. Yes, that is what it refers to.

17 Q. Okay. Mr. Snelson, at what point
18 will Ontario Hydro recognize for planning purposes the
19 existence of the customers' intention to self-generate
20 or load displace informally and formally? When will
21 you begin to take that into account in your load
22 forecasts?

23 MR. BURKE: A. The load forecast will
24 take the impact of municipal utility generators into
25 account at the point in time where it is fairly likely

1 that they will be able to proceed with whatever
2 projects that they are proposing.

3 Q. Thank you, Mr. Burke. But as a
4 planner, Mr. Snelson, when would you consider it
5 prudent to assess these as uncertain contingencies or
6 as things that should be considered within the
7 Demand/Supply Plan?

8 MR. SNELSON: A. Well, to some degree we
9 have already done so.

10 Q. Well, let me give you a concrete
11 example, Mr. Snelson.

12 Are you treating, consistently treating
13 contingencies in the DSP, such as in Plan 15, the need
14 for a 4 by 881 CANDU, are you treating that the same as
15 you are treating the project for a cogeneration unit in
16 Kingston?

17 A. I'm sorry, I don't understand the
18 question.

19 Q. Are you treating the two of them
20 equally in terms of as alternatives to be assessed
21 within the DSP?

22 A. What alternatives are we talking
23 about?

24 Q. A 4 by 881 CANDU and a cogeneration
25 unit by the Kingston Public Utilities Commission.

1 MR. B. CAMPBELL: Mr. Chairman, could I
2 try my theme again?

3 I think the way those alternatives are
4 compared in the planning has been gone over time and
5 time again, many times in this hearing, and certainly
6 again I am unaware of any suggestion from these people
7 that the comparison of new CANDU units versus new
8 options of other types in any basic way has been
9 changed. It simply hasn't.

10 THE CHAIRMAN: Well, I think the evidence
11 is that municipal utility generation is not at present
12 part of the load forecast for reasons that Mr. Burke
13 has just explained, and that, as far as I know, there
14 is no evidence to this point that they have ever been
15 part of Hydro's planning. But perhaps Mr. Snelson can
16 confirm that.

17 MR. SNELSON: Specifically, I don't
18 believe that in the studies going up to the
19 Demand/Supply Plan and coming up today that we have
20 included a category for municipal utility generation.

21 However, some of the projects that are
22 being proposed as municipal utility generators are
23 reincarnations, if you like, of projects that were
24 offered to us and have been part of our non-utility
25 generation planning and they are just coming in through

1 a different route. So the projects in Windsor, for
2 instance, were at one time a part of the non-utility
3 generation potential that Ontario Hydro was
4 considering.

5 Ontario Hydro at times has considered the
6 non-utility generation potential associated with the
7 district heating system in downtown Toronto, which is
8 part of, as I understand it, the proposals for the
9 Toronto scheme.

10 So these are in some cases the same
11 opportunities coming by a different route.

12 MR. MATTSON: Q. Yes, Mr. Snelson. I
13 understand that. We have heard about some of these
14 projects in different shapes and forms within the
15 Non-Utility Generation Panel.

16 But certainly we haven't had evidence
17 with respect to third party power purchases or
18 self-generation as a potential or an alternative to the
19 other alternatives that were identified by Ontario
20 Hydro in the Demand/Supply Plan; correct?

21 MR. B. CAMPBELL: With respect, Mr.
22 Chairman, that is simply incorrect. The load
23 displacement non-utility generation, the issue of third
24 party purchases has been discussed regularly throughout
25 these proceedings.

1 MR. MATTSON: Really, Mr. Chairman --

2 THE CHAIRMAN: I thought these questions
3 were all related to municipal utility generation, is it
4 not?

5 MR. MATTSON: Yes.

6 THE CHAIRMAN: Well, I think Mr. Snelson
7 has answered the question that it hasn't been directly
8 part of the planning but has been indirectly -- some of
9 them have been reincarnated, to use his words, in the
10 NUG program.

11 Now, I think you can follow up on that if
12 you want to.

13 MR. MATTSON: Yes. Thank you, Mr.
14 Chairman.

15 Q. Mr. Snelson, just before I get off
16 track then, I would like to stay with the Kingston
17 Public Utilities Commission project that we were
18 discussing.

19 [11:40 a.m.]

20 That certainly was not something that has
21 been reincarnated, one of the projects that you
22 testified to as being reincarnated; is that fair?

23 MR. SNELSON: A. I don't know enough
24 about the Kingston project to be able to answer that
25 question.

1 Q. Okay. And you would agree, Mr.
2 Snelson, that there is a different impact on Ontario
3 Hydro between a municipal utility generator and a
4 non-utility generator who sells the power back to
5 Ontario Hydro; is that fair?

6 A. Yes, but it is quite similar to the
7 impact of Ontario Hydro of an industrial customer who
8 decides to self-generate.

9 Q. The only, if I might suggest, the
10 only further distinction that may need to be made is
11 this distinction that you alluded to in direct
12 concerning the public power pool, the complex practical
13 and policy issues involved with the public power pool?

14 A. Well, that is a factor, but municipal
15 utilities are themselves utilities rather than actual
16 end-users. So there are potentially some different
17 issues in that regard, but I think the public power one
18 is the main one.

19 Q. And, Mr. Snelson, again the
20 comparison I made between the CANDU and the Kingston
21 project, since the Update and given your knowledge, are
22 you able to determine which project is more likely to
23 occur, the 4 by 881 CANDU, which is part of the
24 Demand/Supply Plan, or the cogeneration unit in
25 Kingston?

1 A. We have no plans at this time for new
2 4 by 881 megawatt nuclear generating stations. So in
3 the 1990s during the period of capacity surplus, I can
4 state with some assurance that we won't have a new 4 by
5 881 megawatt nuclear generating station other than
6 things that already exist or are almost finished.

7 Q. And the likelihood of the Kingston
8 project going ahead, Mr. Snelson?

9 A. I couldn't give you a probability
10 value on that.

11 Q. Is it fair, Mr. Snelson, though, from
12 your evidence that the Ontario Hydro customers' point
13 of view has changed to the point where self-generation
14 load displacement and third party power have become
15 increasingly viable alternatives to Ontario Hydro's
16 supply of power?

17 A. There are increased incentives for
18 customers, particularly large industrial or municipal
19 customers to generate or buy some their power from
20 third parties, and that's been discussed as to the
21 effects on the load forecasts and so on.

22 Q. So you would agree then that they
23 have become increasing viable alternatives to Ontario
24 Hydro's supply from the customers' point of view?

25 A. If it wasn't viable from the

1 customers' point of view, they wouldn't propose doing
2 it, I presume.

3 Q. And, Mr. Snelson, briefly this has
4 been touched upon, but I would like to suggest that it
5 is also fair that the municipal customers increased
6 interest in self-generating or purchasing from third
7 party producers is a result of the generators'
8 perceived cost advantage of doing so over the
9 purchasing from Ontario Hydro; would you agree with
10 that?

11 A. Can you just repeat the question, I
12 wasn't sure whether we are talking about the generators
13 or the customers.

14 Q. Is it fair to suggest that the
15 municipal customers' increased interest in
16 self-generating or purchasing power from third power
17 producers is a result of the customers' perceived cost
18 advantage of doing so over purchasing power from
19 Ontario Hydro?

20 A. Yes, and it probably has something to
21 do with his perception as to how that might change in
22 the future.

23 Q. Thank you.

24 Mr. Burke, as far as your role goes in
25 forecasting and coming up with a load forecast, is it

1 fair to suggest that the Demand/Supply Plan Update
2 assumes that Ontario Hydro will maintain all its
3 municipal utility customers?

4 MR. BURKE: A. Are you referring to the
5 1992 load forecast now?

6 Q. Yes.

7 A. Yes.

8 Q. Thank you.

9 I would like to get to the issue of, Mr.
10 Snelson, when you mentioned that Ontario Hydro is
11 discouraging municipal utility load displacement. Has
12 Ontario Hydro ever indicated to any of the proponents
13 of these projects that they will actively oppose their
14 projects, i.e., take legal action, make it more
15 difficult for them to establish these projects?

16 MR. B. CAMPBELL: Mr. Chairman, at some
17 point in this there must be some boundary to relevance.
18 It seems I am sometimes unable to enunciate it very
19 quickly. But in my submission the relationship between
20 Ontario Hydro and the individual commercial enterprises
21 that it is dealing with or municipalities that it is
22 dealing with, in terms of dealing with this difficult
23 issue of both the hold on non-utility generation and
24 the questions that are being considered in a policy
25 sense by the task force I guess chaired by the Ministry

1 of Energy, all of those questions, in my submission,
2 surely go well beyond the kind of issues that this
3 Board needs to consider to deal with the matters which
4 are before it.

5 In my submission, the particular
6 relationships as opposed to the policies which Hydro is
7 applying are beyond the ambit of the inquiry that this
8 panel should engage in.

9 MR. MATTSON: Mr. Chairman, I don't
10 disagree with anything that Mr. Campbell has to say in
11 substance because I think it has been Ontario Hydro's
12 position, and it's fairly enunciated by my friend, that
13 the information that they have put before you completes
14 the assessment and is in fact all that you need to
15 consider.

16 In light of the Update, however, and its
17 reference to an unprecedented customer reaction and an
18 increasing interest in self-generation and load
19 displacement MUGs and third party power, issues that
20 Energy Probe has been actively pursuing at this hearing
21 and trying to suggest to Ontario Hydro that they are
22 reasonable alternatives, these issues have now
23 influenced the Update, I think that's clear. And I
24 think it's fair to ask Ontario Hydro now how these
25 issues have influenced the DSP and the Update, and

1 whether or not the evidence and the underlying
2 assumptions that went towards making those decisions
3 concerning the Update are before this panel.

4 Those are the questions that I am asking.
5 That's the issue I am getting at with this panel.

6 THE CHAIRMAN: There is no question that
7 Hydro recognizes that there is a customer interest in
8 these matters. But what Hydro's posture has been with
9 a specific customer or what it has done when it is
10 negotiating with customers I think goes beyond the
11 planning considerations that we have to consider. So I
12 don't think that question that you have just asked
13 needs to be answered.

14 MR. MATTSON: Mr. Chairman, just for the
15 purposes of my question, my question was: Is it fair
16 to suggest that the DSP Update assumes that Ontario
17 Hydro maintain all its municipal utility customers? It
18 was agreed to, and then I asked whether or not Ontario
19 Hydro is actively taking any actions to keep this
20 situation as such.

21 THE CHAIRMAN: I said that is a question
22 that they don't have to answer.

23 MR. MATTSON: Okay. Thank you.

24 Q. Mr. Snelson - it may have been Mr.
25 Burke - you had a brief discussion with Mr. Poch that

1 Ontario Hydro rates will increase if an Ontario Hydro
2 customer leaves the Ontario Hydro system and if costs
3 cannot be reduced. Theoretically this is a correct
4 statement?

5 MR. BURKE: A. I think as long as you
6 suggest correspondingly reduced, then that is fine,
7 yes.

8 Q. Thank you. Now, on the assumption
9 that costs cannot be reduced correspondingly, is it
10 fair to say that this would mean that each load
11 displacement project has the potential of pushing rates
12 up further and making Ontario Hydro even less
13 competitive?

14 A. In the period of surplus capacity,
15 that is true. As soon as you go beyond the period of
16 surplus capacity, then the question of load
17 displacement non-utility generation can be treated just
18 like any other addition to capacity.

19 Q. All right. And the evidence is that
20 Ontario Hydro is in a position of surplus capacity?

21 A. Yes.

22 Q. Okay. Mr. Burke, this situation
23 where rates would be pushed up further for each load
24 displacement project, this would provide an even
25 greater incentive for the next load displacement

1 project to leave the system; correct, if costs cannot
2 be controlled?

3 A. I think the magnitudes of this have
4 to be borne in mind. If we were dealing with several
5 hundred megawatts on a system of 23,000-odd megawatts
6 or so of load, the sort of effect that you are talking
7 about, while it's in the wrong direction, is not going
8 to be a large effect, and I don't know whether that's
9 going to be large enough to trigger incremental
10 decisions.

11 Q. But certainly to date your knowledge
12 of the projects and the increasing frequency with which
13 they have been coming forward has had enough of an
14 impact, Mr. Burke, that it's persuaded Ontario Hydro to
15 resigned its right of first refusal and to now
16 discourage municipal utility generation; is that fair?

17 MR. SNELSON: A. It's a sufficient
18 effect that it is one of a number of actions that we
19 feel we have to take to control costs, to prevent rates
20 going up, as proper management of the electricity
21 system, yes.

22 Q. And, Mr. Snelson, this condition of a
23 surplus capacity where load displacement projects have
24 the potential of increasing rates further and creating
25 more incentives for future load displacement projects

1 coming forward, it's a condition that is commonly
2 referred to as a price demand spiral?

3 A. That's an economist's term. I am not
4 an economist.

5 Q. Mr. Burke?

6 MR. BURKE: A. Yes.

7 Q. And a more colloquial term that's
8 been used in the press has been a death spiral; is that
9 fair, Mr. Snelson?

10 THE CHAIRMAN: I'm sorry?

11 MR. MATTSON: A death spiral.

12 MR. SNELSON: I don't think I can comment
13 on what terms might or might not be used in various
14 press articles.

15 MR. MATTSON: Q. Mr. Burke?

16 MR. BURKE: A. I would just like to add,
17 I think that refers to an extreme form of what you were
18 talking about.

19 The point in my previous statement was
20 that I didn't think that we had the orders of magnitude
21 to generate such an extreme form.

22 Q. Would you agree, Mr. Burke, that if
23 this threat of the price demand spiral increased and
24 became more extreme and events continue to unfold as
25 they have in the past six months, that this price

1 demand spiral begins to become inevitable?

2 MR. B. CAMPBELL: Mr. Chairman, I think
3 that the --

4 THE CHAIRMAN: I think Mr. Burke can
5 answer that question.

6 MR. BURKE: I think the orders of
7 magnitude of what we have seen in the last few months
8 are not sufficiently large to lead to what you were
9 talking about.

10 And as I have said, I believe that the
11 likelihood of projects proceeding depend on the
12 expectations of our customers regarding future prices
13 for electricity and gas proving to be correct. And as
14 we have stated this hearing, we are trying at Ontario
15 Hydro to keep price increases below even that in the
16 previous load forecast, and if we do succeed in our
17 objectives, I don't think the price expectations that
18 underline many of these projects will be fulfilled, so
19 that many of them will not in fact proceed.

20 So we are at a point in time in this
21 where all the negative information is available and we
22 have yet to see whether changes which act to limit the
23 extent of implementation of these projects can be
24 brought about.

25 MR. MATTSON: Q. All right, thank you,

1 Mr. Burke.

2 I understand that the order of magnitude
3 right now does not cause you to or is not sufficient to
4 lead you to this conclusion that the price demand
5 spiral is inevitable. But if events continue to unfold
6 as they have, if your cost cutting measures do not have
7 the impact that you hope for, if the same amount of
8 projects come forward in the next six months, would
9 that then be an order of magnitude that would be
10 sufficient to lead you to this conclusion that the
11 price demand spiral is inevitable?

12 MR. BURKE: A. The price demand spiral
13 simply refers to the fact that as prices rise demand
14 falls, and that in turn raises prices.

15 So what I am suggesting is when customers
16 leave of the system, the unit costs do rise, I agree
17 with that, and there may be increases in price and
18 reductions in demand. What I am suggesting is that
19 those, based on current trends, are not in themselves
20 large numbers and I don't believe that the potential is
21 there for them to become huge numbers.

22 The economics of these projects
23 frequently depends on being able to use the facility in
24 some sort of cogeneration or district heating kind of
25 mode, and that's what brings forward many of the

1 projects that we are seeing today, and that
2 circumstance is not generalizable to all municipal
3 utilities in the province by a long shot.

4 So there is a limit to the number of
5 these projects, I don't know what that number is, but I
6 don't believe it's a large enough number to cause the
7 sort of destabilization that you are implying with your
8 question.

9 Q. In order for the price demand spiral
10 to be of insignificance to Ontario Hydro, isn't it fair
11 that Ontario Hydro will have to prevent its customers
12 from choosing their own least cost option in meeting
13 their own electricity demands? Isn't that fair, Mr.
14 Snelson, at this time?

15 MR. SNELSON: A. Well, the word "least
16 cost" gets bandied around in these hearings in a number
17 of ways, and least cost is usually taken to mean least
18 cost planning for demand management and so on, to chose
19 the lowest cost to the customer and the utility
20 together. And it appeared that surplus capacity, the
21 least cost alternative in that sense is usually not to
22 build additional generating facilities in a municipal
23 utility.

24 Q. But given, Mr. Snelson, your
25 understanding of the customers' intent and what they

1 have been telling Ontario Hydro they feel their own
2 least cost option is, isn't it fair to suggest that
3 Ontario Hydro will have to prevent the customers from
4 choosing this option to meet their electricity demands?

5 I understand that Ontario Hydro may not
6 feel it is their least cost option, but if the
7 customers were left to their own devices to choose.

8 [12:02 p.m.]

9 A. There are some customers who may have
10 opportunities, some municipal customers who may have
11 opportunities to either generate power or buy power
12 from a third party at a lower cost than the rate that
13 Ontario Hydro would charge them, and in those
14 circumstances then they would be saving money. And I
15 presume that is what you mean by the 'customers least
16 cost'.

17 Q. Yes. Mr. Snelson, if I could I would
18 like to take you again to Volume 160 and part of my
19 cross-examination. I believe it was the last questions
20 before the summer break at page 28488, and line 11,
21 Exhibit No. 683.47, Interrogatory No. 11.2.39.

22 I had the interrogatory, and in the
23 interrogatory the question was: Could Hydro remain
24 solvent without the debt guarantee if customers gain
25 the right to purchase power from producers of their

1 choice?

2 And the answer was: Hydro has not
3 studied the scenario in question and is therefore not
4 in a position to respond.

5 And then I asked if that was still the
6 case in June, and yes, that was still the case. Dr.
7 Long responded that: That is something that I should
8 answer. Yes, that is still the case. We have not
9 studied that.

10 Now, Mr. Snelson, since Panel 10 has that
11 evidence changed? Has it now been studied?

12 A. Not to my knowledge.

13 Q. Then, Mr. Snelson, I would like to
14 ask you some questions about your evidence in direct
15 where you indicated -- if you would like to go to the
16 volume it is 174, 30431, and you indicated that:

17 I think it is well-known. It has been
18 reported in the press that Ontario Hydro
19 is discouraging municipal utilities to
20 self-generate in the current
21 circumstances.

22 And on 432 you indicated that: Municipal
23 self-generation weakens the power pool and increases
24 costs in total.

25 I was wondering, on what evidence of the

1 DSP you are relying on to support that conclusion?

2 A. I presume the conclusion that you are
3 asking me to give you more information on is that it
4 raises costs in total?

5 Q. Weakens the power pool and increases
6 costs in total, yes.

7 A. The essence of the reason for saying
8 that it increases costs in total is that in the early
9 to mid-1990s during the period of surplus capacity
10 incremental cost and incremental value to Ontario Hydro
11 of additional generation is of the order of 2 cents a
12 kilowatthour, and that represents largely fuel costs
13 that can be saved if we have additional supplies of
14 electrical energy.

15 Now, I don't have specific cost figures
16 for each of or for any of the municipal utility
17 generation proposals, but I doubt that any of them have
18 a total cost of generation that is of the order of 2
19 cents a kilowatthour or less.

20 The reason I believe that those are being
21 proposed is because the total cost is less than either
22 what Ontario Hydro's rates actually are today or what
23 they fear Ontario Hydro's rates might be in the future.

24 I was just trying to find a good
25 reference on an average price to municipal electrical

1 utilities. I think it is safe to say that our average
2 price to customers is closer to 5 cents than to 2
3 cents.

4 We have got a lot of data on prices to
5 final customers, not so much on the price to the
6 municipal utilities.

7 But there is a very wide difference at
8 present between the average cost of electricity
9 production with all of the fixed costs rolled in, which
10 is what is used to base the rate, and it is of the
11 order of 5 cents a kilowatthour, compared to the
12 incremental cost of electricity production from the
13 existing system during the period of capacity surplus
14 which is the order of 2 cents a kilowatthour.

15 So if a municipal utility can buy power
16 or generate power itself at 4 cents a kilowatthour then
17 it says to me, that looks good, I can save 5 cents a
18 kilowatthour on my bill from Ontario Hydro, I have got
19 a 1 cent a kilowatthour saving.

20 Looked at on the bigger picture of the
21 whole electricity system and utilities and customers
22 put together they are buying power at 4 cents a
23 kilowatthour and they are only saving 2 cents a
24 kilowatthour, and so costs in total are going up, and
25 if those costs are not borne by the utility that is

1 self-generating, then they are going to be borne by all
2 other customers.

3 Q. Mr. Snelson, this discussion though
4 of your support for the statement that it weakens the
5 power pool and increases costs in total, is this a
6 discussion though that has been had at this
7 Demand/Supply Plan hearing? Is this something that was
8 unanticipated by the planners originally and now is
9 something that is being discussed with the issuance of
10 the Update; is that fair?

11 A. The fact that incremental costs can
12 be above or below the average cost is something we have
13 always been aware of and that is a fact which has been
14 recognized in planning.

15 Q. But, for example, Mr. Snelson, is
16 there any environmental benefit to discouraging
17 municipal generation?

18 A. That depends upon the characteristics
19 of the municipal generation, environmental
20 characteristics of that compared to the environmental
21 characteristics of the continued operation in certain
22 parts of the existing system or wherever the energy
23 would come from.

24 Q. And certainly, that energy isn't part
25 of the Demand/Supply Plan, i.e. the specifics of the

1 projects of municipal generation that are being
2 discouraged versus the support or the rationalization
3 for discouraging them on the part of Ontario Hydro?

4 MR. B. CAMPBELL: Well, with respect, Mr.
5 Chairman, it is certainly Hydro's position that
6 information that would allow those comparisons is
7 certainly before the Panel.

8 It is correct that the details of
9 individual projects that my friends refer to, not every
10 thought in everyone's mind as to what project might
11 come forward is before this Panel, nor in my submission
12 ought it to be. If my friend wants to make that matter
13 for argument that is his business, but certainly the
14 characteristics of all of the available technologies,
15 including emission rates, environmental impacts, et
16 cetera, are all part of the evidence which has been the
17 subject of exhaustive cross-examination before this
18 Board.

19 MR. MATTSON: Q. Mr. Snelson, shouldn't
20 the benefits and disadvantages of allowing the Ontario
21 Hydro municipal customer to pursue load displacement
22 options be fully explored at this planning hearing
23 before Ontario Hydro?

24 THE CHAIRMAN: I don't think that is a
25 question Mr. Snelson has to answer. That is a question

1 that is for argument.

2 MR. MATTSON: Q. Mr. Snelson, is it fair
3 to say that the "unprecedented customer reaction", as
4 it has been called, was not anticipated by the
5 demand/supply planners?

6 THE CHAIRMAN: Now, you mean
7 demand/supply planners as a group at Hydro continuing
8 through all the years, or do you mean the people who
9 prepared Exhibit No. 3?

10 MR. MATTSON: Q. Yes, Exhibit No. 3 in
11 the original Demand/Supply Plan.

12 THE CHAIRMAN: All right.

13 MR. SNELSON: Exhibit 3 was based upon
14 certain projections of the future, and there are
15 certain things that have come about that were not
16 projected at that time. The recession and the severity
17 of this current recession wasn't projected at that
18 time, and the projections for electricity prices at
19 that time were more moderate than we have today.

20 MR. MATTSON: Q. And is one of those
21 things that were not anticipated, is that the
22 unprecedented customers' reaction to preferring
23 self-generation and load displacement over Ontario
24 Hydro supply; is that fair?

25 MR. SNELSON: A. You keep using this

1 word "unprecedented reaction", and I know it is our own
2 words, but our own words relate to the overall reaction
3 of customers rather than to any specific aspect.

4 Q. I think we went into that, the two
5 different...

6 A. Yes.

7 Q. All right. But could you answer the
8 question, then: Is this something that wasn't
9 anticipated?

10 A. I want to know what the "this" is
11 before I answer the question.

12 Q. The appeal that self-generation and
13 third party power projects would have to the Ontario
14 Hydro municipal customers.

15 A. At the time of the DSP in 1989 gas
16 prices were projected to be higher, electricity prices
17 were projected to be lower than they are today. Under
18 those circumstances it would not have been reasonable
19 to project such a large interest in various forms of
20 gas-fired generation, both by Ontario Hydro itself,
21 through non-utility generation, or through
22 self-generation by industrial customers, or
23 self-generation of third party production by
24 municipals.

25 Q. Mr. Snelson, since Exhibit 796 it is

1 fairly clear that Ontario Hydro now recognizes how
2 appealing those alternatives are to Ontario Hydro
3 municipal customers and in fact has had to update the
4 DSP to manage the surplus and control rates because of
5 that; correct?

6 A. Well, the first stage and perhaps the
7 largest stage of adjustment was between the DSP and the
8 DSP Update that was issued in January, 1992 and
9 discussed in Panel 10.

10 At that point a very large shift was made
11 in planning to place more reliance on the type of
12 options that I have described that rely more on gas
13 than on other fuels, and that was a very essential part
14 of our Panel 10 evidence, and there has been some
15 continuation of that trend.

16 Q. But all the decisions made in Exhibit
17 452 were consistent with the flexibility that Ontario
18 Hydro planners had put into the Demand/Supply Plan;
19 correct? All the decisions were decisions that were
20 consistent with the Demand/Supply Plan; correct?

21 A. The decisions were consistent with
22 the directions of the Demand/Supply Planning Strategy.
23 There were some changes from the Demand/Supply Plan
24 document of 1989, such as the change from planning to
25 the upper to planning around the median.

1 Q. Yes, but the fixation now with
2 managing surplus with a view to controlling rates is
3 driven by a concern that was not anticipated by the
4 original Demand/Supply Plan; correct?

5 A. It was not anticipated by the
6 original Demand/Supply Plan. It was a feature of the
7 Demand/Supply Plan Update where we indicated the need
8 to manage surplus and the intention to manage surplus,
9 and that that would have a beneficial effect on rates.

10 Q. But at that time Ontario Hydro hadn't
11 rescinded the right of first refusal for
12 municipalities, nor had it actively indicated or
13 publicly indicated its discouragement of municipal
14 utility generation; that's fair?

15 A. I think the transcript that you took
16 me to - and I have forgotten the reference but maybe we
17 should go back there - indicated otherwise.

18 Q. Sure. It is 160, page 28487, line 9.
19 On line 7, the Chairman asked:

20 The present policy being that you
21 don't let them do it; is that right?

22 MR. SNELSON: The policy that was
23 discussed on Panel 5 by Mr. Vyrostko was
24 that we do allow municipal utilities to
25 have the right of first refusal for

1 non-utility generation in their service
2 territory.

3 You indicate three lines down that there is a concern
4 and - this was in June, 1992 - that it was under
5 consideration.

6 A. My point is that the positive
7 statement that the municipal utilities had the right of
8 first refusal was at the time of Panel 5, and that was
9 Mr. Vyrostko's evidence, and that by the time of Panel
10 10 we were already in the situation where we were in
11 the process of reviewing that with a view to changing
12 it.

13 Q. All right. Panel 10 is four or five
14 months after Exhibit 452; correct? Is that fair?

15 A. Sorry, Panel 10 was some months
16 after...?

17 Q. After the release of Exhibit 452?

18 A. Yes.

19 Q. Yes. Thank you. While we are on
20 this issue of what was anticipated by the DSP versus
21 the Update I would like to turn you in that same Volume
22 160 to page 28484. I was asking Dr. Long about the
23 potential impact that rising rates, unforecast rising
24 rates might have on the Demand/Supply Plan.

25 We were going through some of the

forecasts from the business plan in '89, and I was taking him to some more recent forecasts.

You will note on page 28484 at line 7, and I was reading part of the transcript that came from his direct evidence, which was Volume 149, page 26385, and it read:

As I said, the effect of these factors is largely independent of Hydro's longer-term plans to balance supply and demand, meaning that this outlook for higher prices would be an underlying feature of any alternative for dealing with future supply and demand.

Do you see that?

A. Yes, I see that.

Q. Wouldn't you agree that with the Update, Exhibit 796, that demand/supply now has an increased focus on controlling rates and that the undertaking before this Board has changed to something that was not identified as an alternative for dealing with future demand and supply in the original Demand/Supply Plan; is that fair? ---On resuming at 1:53 p.m.

THE REGISTRAR: Please come to order.
This hearing is again in session. Be seated, please.

1 MR. MATTSON: Thank you, Mr. Chairman.

2 Q. Mr. Snelson, we were looking at
3 Volume 149, page 26384 to 26385, a discussion there by
4 Dr. Long in how the change in the rate outlook affected
5 the 1989 Demand/Supply Plan. Do you have the
6 transcript?

7 MR. SNELSON: A. Yes, I do.

8 Q. Okay. If just look to the bottom of
9 26384, his answer is:

10 Yes, the long-term rate outlook that I
11 have currently shown you, being
12 consistent with the Update, is
13 significantly higher than that that was
14 projected at the time of the original
15 DSP.

16 There had been a number of factors
17 which have contributed to this increase,
18 however apart from the effect of the
19 increased targets for demand management
20 and non-utility generation program which
21 have added between 5 and 10 per cent to
22 the rate outlook, this change in rate
23 outlook has little to do with the changes
24 introduced in the Update plans.

25 Do you see that?

1 A. Yes, I do.

2 Q. And then the quote that I was
3 referring to is at the bottom of that page, he says:

4 As I said, the effect of these factors
5 is largely independent of Hydro's longer
6 term plans to balance supply and demand,
7 meaning that this outlook for higher
8 prices would be an underlying feature of
9 any alternative for dealing with future
10 supply and demand.

11 My question, really, Mr. Snelson, to cut
12 this short, talking about Exhibit 796 now, and looking
13 at Dr. Long's response that the change in rate outlook
14 has little to do with the changes introduced in the
15 updated plans, I am asking you now about Exhibit 796,
16 has the change in the rate outlook had anything to do
17 with the changes in the updated DSP plans?

18 A. As I said in my direct evidence, then
19 the customers' reaction to rate increases, and I did
20 say they were -- in large measure they were the rate
21 increases that was discussed by Dr. Long, has had a
22 significant impact on how we manage the capacity
23 surplus in the 1990s and our general planning for the
24 1990s, and it's had a much lesser effect on the
25 long-term demand and supply plan.

1 Q. All right. I am not quite sure if
2 you answered my question fully. But given Exhibit 796,
3 and that there has been this -- Exhibit 796, I believe
4 you are admitting that it has been influenced by change
5 in the rate outlook; that's fair, correct?

6 A. The change in rate outlook has been
7 one of the factors that has been a driving factor in
8 our decision-making, yes.

9 Q. In Exhibit 796?

10 A. Yes, and in the way I described, just
11 described to you and the way that was described in
12 Exhibit 796 and in our direct evidence.

13 Q. Right. But the original
14 Demand/Supply Plan, the 1989 one, Exhibit 452, was
15 consistent with -- that plan was largely independent of
16 the rate outlook; is that fair?

17 A. Not completely, no.

18 If you go back to Dr. Long's evidence,
19 then you will see that his overhead, which was page 79
20 of Exhibit 682, which was the Panel 10 overheads,
21 clearly shows the effect on rates of not managing the
22 surplus, and so in the issue as to whether or not we
23 should manage surplus, then rate impact was a
24 significant factor at the time of the DSP Update, and
25 those pressures which lead to it being a significant

1 factor at that time have increased, as we have
2 testified, and that's been another factor, significant
3 factor in 796 of -- but increased.

4 Q. Looking at 26384, Mr. Snelson, maybe
5 I am confused, but Dr. Long seems to be indicating that
6 other than the increased targets for demand management
7 and non-utility generation, the rate outlook had little
8 to do with the changes introduced in the Update plans.
9 Do you see that?

10 A. Well, the way I read it is that he is
11 indicating that there are factors that have led to
12 higher rates, that have changed the view with respect
13 to something, and most of those factor are independent
14 of the selection of the long-term demand and supply
15 options because they are costs that relate to things
16 that are of a shorter-term nature.

17 Q. Okay. And that really leads me to
18 much of what our discussion has been about this
19 morning, and that is that your evidence that the
20 changes that led to the rate increase have little to do
21 with changes introduced in the updated plans, that that
22 is no longer true of Exhibit 796 as your evidence was
23 based on the assumption that there was no potential for
24 municipal and industrial self-generation that would
25 become viable if rates increased; is that fair, Mr.

1 Snelson?

2 A. That is a very long question. By the
3 time you got to the end, I had forgotten how it
4 started.

5 Q. All right. You were telling me how
6 to interpret Dr. Long's evidence in Volume 149, that
7 the change in rate outlook had little to do with the
8 changes introduced in the Update plans.

9 A. Well, I'm not interpreting his
10 evidence; I am reading how it continues. The answer he
11 gives is:

12 Yes, some of the factors include a
13 lower forecast of inflation, higher
14 projections in capital program costs
15 which have come through Hydro's business
16 planning process, lower forecasts of
17 nuclear generation, somewhat higher net
18 income targets, higher pension costs
19 which are factored in the Corporation's
20 operating costs, as well as the
21 introduction of some cost allowances.

22 As I said, the effect of these factors
23 is largely independent of Hydro's longer
24 term plans to balance supply and demand,
25 meaning that this outlook for higher

1 prices would be an underlying feature of
2 any alternative for dealing with future
3 supply and demand.

4 Q. And now, given Exhibit 796, that you
5 would add to these factors the increased potential for
6 municipal and industrial self-generation that's
7 becoming viable as rates increase, an additional
8 factor. Now, are you not responding to that increased
9 pressure in Exhibit 796?

10 THE CHAIRMAN: By doing what?

11 MR. MATTSON: By updating the
12 Demand/Supply Plan and doing all the things we have
13 heard about, Mr. Chairman, the changes that they have
14 made in the Update, deferring DM, mothballing Lakeview,
15 and a number of other changes that were made.

16 MR. SNELSON: We have responded to the
17 higher rate projection and particularly the customers'
18 response to higher rate projection by taking measures
19 to cut costs in the short run and in the long run, and
20 we expect that process to continue.

21 MR. MATTSON: Q. So then, Mr. Snelson,
22 if I could just finish this off, then, the change in
23 the rate outlook has a great deal to do with the
24 changes introduced in Exhibit 796?

25 MR. SNELSON: A. I indicate in my direct

1 evidence that one of the pressures that was causing the
2 changes was increased projections of rates and in
3 particular customers' responses to increased
4 projections of rates, and that's been consistent
5 through our evidence.

6 Q. But that is a change from the
7 original Demand/Supply Plan and from Exhibit 452?

8 A. As I have said, keeping costs down is
9 something which has always been part of our planning,
10 and keeping costs down has the objective in all cases,
11 except for demand management, of keeping rates down.
12 And so anywhere through our planning process that says
13 we are doing this to choose a low cost option can also
14 be read as saying we are doing this to keep rates down
15 in the long run, except for the case of demand
16 management where you have the total customer cost type
17 of considerations that come in.

18 Q. Yes, I understand that. Dr. Long's
19 evidence that this outlook for higher prices would be
20 an underlying feature of any alternative for dealing
21 with future supply and demand, Mr. Snelson, that
22 evidence was based on the assumption that higher prices
23 would not threaten the public power pool, as you have
24 put it; is that fair?

25 MR. B. CAMPBELL: Mr. Chairman, surely

1 the answer says what the answer says. Dr. Long gives a
2 list of factors which Mr. Snelson has read, he provides
3 in the answer a list of factors and he says the effect
4 of these factors is largely independent of the longer
5 term plans to balance supply and demand. They may be
6 different from other factors in that regard, but that's
7 what he said.

8 THE CHAIRMAN: I took what you are saying
9 is we were looking forward to some higher prices no
10 matter what we do.

11 MR. MATTSON: Yes.

12 Q. Mr. Snelson, I think we established
13 that that's no longer the case with Exhibit 796. Now
14 we are actually in the Demand/Supply Plan and in its
15 Update trying to manage surplus and control rates;
16 correct?

17 MR. SNELSON: A. I want to be clear that
18 we have a distinction between the Demand/Supply Plan
19 Update which was discussed in Panel 10 and Exhibit 796.

20 Q. Yes.

21 A. But in both of those, managing
22 surplus was an important part of the plan. Panel 10
23 was partway through that process in the Demand/Supply
24 Plan Update, was partway through that process in that
25 the surplus had been identified, the benefits of

1 managing is surplus had been indicated, but the
2 specifics of how to manage surplus had not been decided
3 upon.

4 And as of Exhibit 796, we have made some
5 decisions on how to manage surplus. Due to
6 continuation of the pressures that created the surplus
7 in the first place, then we seem to have a larger
8 surplus to manage, and so some further decisions are
9 required, and this is an evolution through an evolving
10 situation.

11 Q. Mr. Snelson, are you saying, then,
12 that the transcript quote that I read to you from Dr.
13 Long, the effect of these factors is largely
14 independent of Hydro's longer term plans to balance
15 supply and demand, are you saying that's still the
16 position of Ontario Hydro?

17 THE CHAIRMAN: It's not the position;
18 it's an analysis taken by Dr. Long of what the data
19 was. All Dr. Long was saying --

20 MR. MATTSON: Well, I would like to
21 know --

22 THE CHAIRMAN: Just a minute.

23 All Dr. Long was saying was, as I
24 understand it, is given all these factors, no matter
25 what alternatives Hydro proposed, there will still be

1 an increasing rate picture in the long term. That's
2 what I think he was saying. That was his analysis
3 given back in Panel 10.

4 Personally I don't understand what all
5 this is in aid of or what you are trying to establish
6 here.

7 MR. MATTSON: Mr. Chairman, I think what
8 he was also saying was that their projection in the
9 Demand/Supply Plan was that rates would decrease, and
10 now there was increase of evidence that they were
11 increasing, and that was part of the Update and that
12 was Hydro's evidence. And then the questions were
13 asked of Panel 10 if that was going to affect the
14 Demand/Supply Plan. And the answer, and in the context
15 it put was that, no, these rate increases were
16 independent of Hydro's longer-term plans to balance
17 supply and demand and that it would be an underlying
18 feature of any alternative for dealing with future
19 demand and supply.

20 [2:07 p.m.]

21 What I am saying is that I am asking
22 Ontario Hydro, Exhibit 796 has now been tabled, and as
23 I understand it, it is an attempt to manage surplus
24 with a view towards controlling rates. And I am asking
25 if the changes made in 796 were in fact made because

1 this statement wasn't correct at the time, that the DSP
2 wasn't independent.

3 THE CHAIRMAN: I think they are two
4 different concepts. It is very confusing, but I think
5 they are two completely different concepts. One is
6 what Dr. Long saw when he gave his evidence as to the
7 future of rates, and now we have got the load forecast
8 and we have got the 796 decisions, and they are
9 designed to manage the surplus, and they have some
10 impact on rates.

11 I haven't looked it up to see what
12 exactly the impact is, but there is some impact on
13 rates in the short term and the long term, mostly the
14 long term, I guess.

15 MR. MATTSON: Q. Mr. Snelson, today
16 isn't it the high cost -- and I hope we had gone over
17 some of this ground this morning, but isn't it now the
18 high cost of Ontario Hydro power relative to the
19 perceived cost of the independently generated power
20 that is challenging the Corporation?

21 MR. SNELSON: A. I thought we had been
22 over all of this this morning--

23 Q. Yes.

24 A. --and that I have agreed that the
25 customer response to higher rates is a significant

1 factor in our planning, I said it in my direct
2 evidence, and that one of the customers' responses to
3 the higher cost of electricity is that some customers
4 are looking more favourably on generating their own
5 power, and in that sense that it is a part of the
6 factors that are influencing our planning.

7 Q. And wasn't that, Mr. Snelson, the
8 assumption that Dr. Long was going on, the assumption
9 being that higher prices would not threaten or
10 challenge the Corporation to control rates? Wasn't
11 that the assumption that he was going on when he was
12 saying that the DSP plans were independent of rate
13 increases?

14 A. But he didn't say that.

15 Q. Okay.

16 A. He said that the factors that were in
17 effect that were pushing rates up -- and if you look at
18 his figure it shows mostly -- the increase in rates,
19 most of it taking place before '95, that those factors
20 were factors more to do with the existing system and
21 existing cost structure of Ontario Hydro and that with
22 the exception of -- he identified increased targets for
23 demand management and non-utility generation. With
24 those exceptions then the factors that were pushing up
25 rates, those factors would be applicable no matter what

1 we decide to do for the long run.

2 Q. So, Mr. Snelson, what I was asking,
3 now you have information that Dr. Long didn't have, the
4 unprecedented customer reaction to these rate
5 increases; fair?

6 A. There has been a strong customer
7 reaction to rate increases, yes.

8 Q. Dr. Long didn't have that in June?
9 It wasn't identified as one of the factors?

10 A. It wasn't identified to the degree
11 that it is today.

12 Q. All right.

13 THE CHAIRMAN: The fact that customers
14 are mad about rates I don't know whether that would be
15 a factor that would lead to the increase in rates --
16 which is the catalogue of Dr. Long was reciting on page
17 26385.

18 MR. MATTSON: Mr. Chairman, I can ask Mr.
19 Snelson and Mr. Burke again, but I thought it was the
20 evidence that you are in a surplus capacity. When a
21 customer, not just getting upset about it but actually
22 leaving the system, if a customer leaves the system and
23 load displaces, that that pushes rates up further if
24 costs can't be correspondingly controlled.

25 THE CHAIRMAN: You are right. To that

1 limited extent you are right.

2 MR. MATTSON: But I guess I want to ask
3 then how limited we can make this unprecedented
4 customer reaction.

5 THE CHAIRMAN: Well, Mr. Burke has told
6 you about that. He has told you what is in the
7 forecast about all this.

8 MR. MATTSON: Yes, I understand, Mr.
9 Chairman, but I am now asking Mr. Snelson as the
10 planner if the assumptions underlying the original DSP
11 in the Exhibit 452 have now changed, that's all.

12 THE CHAIRMAN: You have gone over that
13 with him over and over again. I think you had better
14 move to something else.

15 MR. MATTSON: Thank you.

16 Q. I would like, Mr. Snelson, to ask a
17 couple questions about the task force set up, as I
18 understand it from your evidence, to discuss a review,
19 municipal utility generation. And that task force, as
20 I understand your evidence, is composed of the
21 Municipal Electric Association, Ontario Hydro and the
22 Ministry of Energy.

23 MR. SNELSON: A. That is correct.

24 Q. Now, Mr. Snelson, can you indicate if
25 this review would include discussing issues such as

1 self-generation load displacement for municipal
2 utilities? Is that one of the items of discussion?

3 A. Self-generation load displacement, I
4 believe that that is what the task force is set up to
5 discuss.

6 Q. It would also be discussing third
7 party access to the electricity grid?

8 A. Not to my knowledge.

9 Q. Will it be discussing wheeling power
10 between third party power producers?

11 A. I am not familiar with the details of
12 the terms of reference.

13 I know it is addressing the municipal
14 utility generation issue, and I would expect that to
15 include both generation owned by and operated by the
16 municipal utility and also generation that the
17 municipal utility might buy from some third party
18 developer. But beyond that I don't know anything about
19 the terms of reference.

20 Q. Mr. Snelson, just going back to an
21 earlier cross-examination by Energy Probe, Volume 77,
22 it was October 30th, 1991, and I'm not sure, Mr.
23 Snelson, if you were on that Panel -- yes, Mr. Snelson,
24 it was Panel 5.

25 MR. B. CAMPBELL: We don't have those

1 transcripts out here, I'm sorry. We didn't know it was
2 going to be referred to.

3 MR. MATTSON: I'm sorry, I thought I gave
4 an indication we would be referring to that.

5 MR. B. CAMPBELL: I'm sorry. If you
6 have, then I will take full blame. But in any event,
7 we don't have the transcript out here and we are going
8 to get it. Just if we could have a moment.

9 THE CHAIRMAN: What did you say the page
10 was?

11 MR. MATTSON: 13812.

12 Q. Mr. Snelson, it is 13812. It is a
13 small point. It is line 3. There had been some
14 discussion about the issue of wheeling and a number of
15 transcripts from the OEB were put to Mr. Vyrostko at
16 the time just generally alluding to an interest that
17 there might have been at the OEB.

18 Mr. Vyrostko indicated:

19 I believe in last year's OEB report
20 they asked that a task force be set up to
21 in fact look at retail wheeling, the
22 Ministry of Energy do that. That task
23 force, the Minister of Energy brought
24 that to the Non-Utility Generation
25 Advisory Council, which has

1 representatives of the entire industry
2 there, and the conclusion was that
3 wheeling, retail wheeling was not of
4 value to the non-utility generation
5 industry, and so we have been taking
6 signals from that group, and we still
7 conclude that we do not see any value in
8 retail wheeling.

9 Mr. Snelson, can you comment on whether
10 Ontario Hydro has changed their position with respect
11 to that evidence?

12 MR. SNELSON: A. I don't know of any
13 change.

14 Q. Thank you. Can you indicate, Mr.
15 Snelson, when the findings of the task force will be
16 public or if that is something that should concern us
17 in terms of the Demand/Supply Plan in your opinion?

18 A. We are now back to the task force on
19 municipal utilities?

20 Q. Yes.

21 A. We had been dealing with something
22 different.

23 Q. Yes, I understand that, your answer
24 to be that. And we are back to the municipal utilities
25 task force.

1 A. That task force is underway, and my
2 understanding is that it is likely to complete its work
3 sometime towards the end of the first quarter of this
4 year.

5 Q. I asked earlier about Windsor, but
6 are any of the proponents of the municipal utility
7 projects on that task force?

8 A. I don't know.

9 Q. Mr. Snelson, the issues -- I would
10 like to just ask you about the issues in the task
11 force, and, as I understand it, you indicate that the
12 task force was dealing with complex practical and
13 policy issues regarding the public power pool.

14 Do you recall that, your evidence in
15 chief?

16 A. Yes, I do.

17 Q. And are not these issues, Mr.
18 Snelson, related to the supply of power in Ontario?
19 Would you agree that they are?

20 A. The public power pool is a concept
21 that is a part of the supply of power in Ontario, yes.

22 Q. And you would agree that the issues
23 before the task force relate to the demand for Ontario
24 Hydro-generated and third party power generated in
25 Ontario?

1 A. I'm sorry, repeat that again?

2 Q. Would you agree that the issues
3 before the task force also relate to the demand for
4 Ontario Hydro-generated and third party-generated power
5 in Ontario?

6 A. They do not, as I understand it,
7 relate to the demand for electricity in Ontario. To
8 the extent that that demand might be met by some
9 different mix of Ontario Hydro generation or municipal
10 utility generation, then obviously what one doesn't
11 supply the other does.

12 Q. Right. And it is related to that?

13 A. Yes.

14 Q. Okay. And the issues before the task
15 force relate to the future of power system planning in
16 Ontario; correct?

17 A. They may have implications for it,
18 but the municipal utility issue is a subset of the
19 larger issues that we face.

20 Q. Then I think, Mr. Snelson, you
21 probably know my next question, and that is just why is
22 Ontario Hydro not discussing the substance of what you
23 described as the complex practical and policy issues
24 regarding public power pool before this Board, why
25 isn't it part of this hearing?

1 MR. B. CAMPBELL: Well, Mr. Chairman,
2 hasn't this been a matter that has been the subject of
3 argument before, and surely this question is not one
4 that arises out of anything to do with the topic of
5 Panel 11.

6 Again, the relative role and structure of
7 the electricity supply framework in the province I
8 believe was one of the early rulings of this Board, one
9 of the very first ones. In my submission, my friend is
10 just repeating territory that has no new aspect to it
11 at all other than he tries to dress it up slightly
12 differently. I am saying there is no distinction.

13 THE CHAIRMAN: I'm not quite sure what it
14 is you are asking. Most of the issues, I suspect, on
15 the agenda of this task force would be the subject
16 matter of discussion at the task force level as well,
17 would they not, Mr. Snelson?

18 MR. SNELSON: Maybe I misheard you, but I
19 thought you said most of the issues on the agenda of
20 this task force would be for discussion at the task
21 force level.

22 THE CHAIRMAN: No, would have been
23 matters which would have been fully aired at this
24 hearing one way or the other.

25 MR. SNELSON: I imagine that many of the

1 issues that are being discussed by the task force would
2 parallel issues that are being discussed here, yes.

3 MR. MATTSON: Q. But not all of them,
4 Mr. Snelson; is that fair?

5 MR. SNELSON: A. I am not familiar
6 enough with the details of what the task force is
7 looking at to answer that.

8 Q. Well, for example, Mr. Snelson, could
9 you indicate -- maybe I am just misreading your
10 evidence, but when you indicated that the task force
11 would be discussing the complex practical and policy
12 issues regarding the public power pool, can you
13 indicate at this hearing where that has been the focus
14 of the discussion or evidence?

15 MR. B. CAMPBELL: Well, with respect, Mr.
16 Chairman, we have taken a position that Ontario Hydro
17 is putting forward this application within the
18 framework of the statutory obligations and authority
19 within which it operates.

20 I haven't reviewed your ruling very
21 recently on this matter, but it is my submission that
22 the appropriate role for that matter, the matter my
23 friend raises, has already been the subject of a ruling
24 of this Panel, and we have called what evidence we see
25 fit in light of that and related rulings, and if my

1 friend has a concern as to the effect of that, my
2 submission is it is for argument. It is not for debate
3 with the witnesses.

4 THE CHAIRMAN: Well, I don't off hand
5 remember the ruling, but that may be because it is late
6 in the day. But in any event, I think Mr. Campbell may
7 be right, that whether Hydro has or has not presented
8 the evidence it needs to present in order to get the
9 approvals it is seeking is a matter for Hydro's
10 discretion, and that seems to be the end of that.

11 MR. MATTSON: Yes, Mr. Chairman. I
12 should just make it clear that I understand Hydro's
13 position from the outset of this hearing has been that
14 it isn't a reasonable alternate that need be
15 considered, and Mr. Campbell is correct in that.

16 I look at Exhibit 796 though as going
17 further than that, and, in fact, possibly - and this is
18 what I am cross-examining on - a recognition by the
19 proponent that this is of concern in Ontario and of
20 concern to their customers. And, in fact, it is
21 something that they are taking very seriously.

22 If that is the case, the onus is on the
23 proponent to bring forth all reasonable alternatives.
24 That is the onus under the Act. And I did give notice
25 to my friend, and I know that this cross-examination of

1 this Panel was also in light of the motion coming
2 forward, and I did give notice that I felt that after
3 796 that there was a Section 5(3) argument, that the
4 proponent has in fact on its own recognized the
5 relative importance of an alternative --

6 THE CHAIRMAN: Isn't that a matter for
7 argument rather than a matter for cross-examination?

8 MR. MATTSON: Yet. And that is why I am
9 just trying to establish from Mr. Snelson if any of
10 this information was before the Board, because if it
11 isn't then that is as far as my questions have to go
12 and I will leave the rest for argument.

13 What I am really giving the proponent an
14 opportunity to do is to point where the issues, the
15 complex practical and policy issues regarding the
16 public power pool, where the discussion of these issues
17 are in the Demand/Supply Plan. That is really what I
18 am allowing the proponent to elucidate on.

19 MR. B. CAMPBELL: Two points, Mr.
20 Chairman.

21 First, we rely on all of the evidence in
22 these proceedings. You have had perfectly demonstrated
23 to you this morning in response to questions about
24 certain of the positions that were taken how it is
25 quite clear that a straightforward calculation out of

1 various figures taken from various exhibits illustrate
2 the policy point that was being made.

3 We rely on all of the evidence and the
4 interactions between the various sides of the planning,
5 the demand side, Hydro supply side, NUG side, as all
6 being relevant evidence to this issue, and it is up to
7 my friend to determine whether the way he defines the
8 issue he wishes to make in argument that all of that
9 evidence is somehow inadequate.

10 In my submission, it is not a question
11 for the witness.

12 My second point is simply this. Mr.
13 Snelson during cross-examination by Mr. Mattson on
14 Panel 10 indicated clearly that there was going to be a
15 review of these sorts of issues with relation to
16 municipal generation.

17 [2:30 p.m.]

18 The only difference now is that that
19 review is taking place within a more formal context.
20 In my submission, there is nothing new on this matter
21 other than that.

22 MR. MATTSON: Again, Mr. Chairman, I
23 don't want to argue with my friend. I don't believe I
24 am putting argumentative questions to them. In fact, I
25 would like to test with the Ontario Hydro panel whether

1 or not the argument put forward by Mr. Campbell is in
2 fact supported by the evidence in 796 and that's all I
3 am cross-examining with respect o.

4 THE CHAIRMAN: That's Mr. Campbell's
5 problem, that it isn't, I think.

6 MR. MATTSON: But isn't it the
7 witnesses -- aren't I offering the witnesses an
8 opportunity to define the issue and to point --

9 THE CHAIRMAN: Maybe you are but their
10 counsel doesn't want them to cease that opportunity.
11 So I guess you have to live with that.

12 MR. MATTSON: Mr. Chairman, it's quite
13 clear that counsel for Ontario Hydro has never wanted
14 this issue before the Board. We have been arguing this
15 from Day 1. And I guess it's his onus and I'm -- all
16 our case, the whole Energy Probe case is directed to
17 showing it's a reasonable alternative and it makes it
18 much easier if the proponent would admit that now.

19 THE CHAIRMAN: I don't think they are
20 going to do it. I think you could be here all day and
21 I don't think you are going to do it. Try as you
22 might.

23 MR. MATTSON: Q. Would you agree, Mr.
24 Snelson, that Ontario Hydro today considers the issue
25 of the public power pool --

1 MR. B. CAMPBELL: Sorry. Just a moment,
2 Mr. Chairman.
3 ---Off the record.

4 MR. B. CAMPBELL: Mr. Chairman, I'm
5 sorry, but just to respond to my friend's comments
6 before he started the next question.

7 In our submission, my friend may wish to
8 put this forward as an alternative all he wants. My
9 recollection of the Board's ruling is that the Board
10 ruled that it was not -- it did not see these as
11 reasonable alternatives to or alternative methods, but
12 it was interested in hearing this evidence on this
13 matter to some degree, to the extent that it could
14 provide insight into the planning decisions that were
15 facing the proponent.

16 We have behaved in accordance with that
17 ruling, we have called evidence which in my submission
18 is fully adequate to meet the tests of the legislation
19 as interpreted both generally and within the context of
20 that ruling. If my friend wants to make an argument
21 that is not so, then that is fine.

22 The issue of what evidence we rely on, I
23 will tell you clearly that it is the position of
24 Ontario Hydro that within the scope of the Board's
25 ruling it relies on all of the evidence that it has

1 provided. And it is Ontario Hydro's evidence that it
2 cannot fairly be parsed into little pieces; it has to
3 be taken in its entirety.

4 MR. MATTSON: Thank you, Mr. Chairman.
5 Thank you, Mr. Campbell.

6 Q. Now, Mr. Snelson, isn't it the issue
7 of the public power pool in light of the unprecedented
8 customer reaction, and I know we are not just talking
9 about the grumbling, but we are talking about the
10 people who are doing something about the increased
11 rates, but this unprecedented customer reaction to
12 rates and Hydro's uncompetitiveness are the heart and
13 pith of electricity planning today; isn't that really
14 what is being discussed now by Ontario Hydro?

15 MR. SNELSON: A. You started by saying
16 that it was of the pith and substance, I think was the
17 phrase, of power planning, and then you say isn't that
18 something that is being discussed by Hydro today, those
19 are two very different things.

20 Q. Yes. Whether or not its being
21 discussed that whether or not it's the pith and
22 substance of electricity planning in Ontario. I
23 understand. I don't want to be unclear.

24 A. Which question do you want me to
25 answer?

1 Q. Is it not the issue of the public
2 power pool at the heart and the pith and substance of
3 electricity planning in Ontario today?

4 MR. B. CAMPBELL: Just a minute.

5 Mr. Chairman, that is not Ontario Hydro's
6 position. I thought I had just addressed this matter.
7 Our position is that Ontario Hydro is dealing with its
8 responsibilities within its statutory framework. It is
9 matters that are within that statutory framework that
10 are particularly relevant to planning, and in my
11 submission, in light of the ruling that you have made,
12 this is not a matter which my friend should be
13 permitted to pursue in the way he seeks to pursue is.

14 THE CHAIRMAN: I think Mr. Snelson can
15 answer it, if he can remember it, the question that has
16 just been asked.

17 Perhaps you could rephrase it again.

18 MR. MATTSON: Yes. Before I ask the
19 question, Mr. Chairman, I understand it's Mr.
20 Campbell's position, we you all know the position.

21 THE CHAIRMAN: I think you can cut
22 through it much quicker if you ask Mr. Snelson the
23 question and he answers it.

24 MR. MATTSON: Thank you.

25 Q. Again, Mr. Snelson, isn't the issue

1 of the public power pool issue that's being discussed
2 by this task force, in light of the unprecedented
3 customer reaction to rates and Hydro's
4 uncompetitiveness at the heart and the pith and
5 substance of electricity planning in Ontario today?

6 MR. SNELSON: A. No.

7 THE CHAIRMAN: You mean by that, just so
8 I understand it, electricity planning by Ontario Hydro.

9 MR. MATTSON: Yes, Mr. Chairman.

10 Q. Why do you say no, Mr. Snelson.

11 MR. SNELSON: A. The issue of
12 self-generation by municipalities is an issue that is
13 of some importance to planning. But it certainly isn't
14 the heart and the pith and the substance of planning.

15 Q. Is it a major factor in planning?

16 A. It's a significant concern; it's not
17 a major factor.

18 Q. Is it a significant enough concern,
19 Mr. Snelson, that it constitutes a reasonable
20 alternative for the customers, for Ontario electricity
21 consumers to consider a viable alternative to Ontario
22 Hydro planning -- or supply?

23 MR. B. CAMPBELL: With respect, Mr.
24 Chairman, my friend has asked that question about six
25 different ways already. I think the evidence is clear

1 as to what Ontario Hydro sees its customers doing in
2 this area.

3 MR. MATTSON: Q. Do they see them doing
4 what they are doing as unreasonable, Mr. Snelson?

5 THE CHAIRMAN: I think Mr. Burke answered
6 this question this morning in quite some detail.

7 MR. MATTSON: I think Mr. Burke put
8 together the load forecast and I understand why he
9 didn't include it in the load forecast. But with
10 respect to planning issues, which is the subject and
11 scope of this hearing, I think that Mr. Snelson has
12 given evidence that it was something that wasn't
13 anticipated in the original DSP, this unprecedented
14 customer reaction, and I am wondering now if Mr.
15 Snelson will go further and say that it's a reasonable
16 alternative that Ontario Hydro now recognizes.

17 THE CHAIRMAN: I think you have your
18 answer already, Mr. Mattson.

19 MR. MATTSON: Thank you, Mr. Chairman.

20 THE CHAIRMAN: If you want to say
21 something, Mr. Burke, you can go right ahead.

22 MR. BURKE: I will leave it at that.

23 MR. B. CAMPBELL: He escaped by the skin
24 of his teeth. [Laughter.]

25 MR. MATTSON: Q. Mr. Snelson, in the

1 Update, I understand it's still Ontario Hydro's
2 intention to request approval for 1,400 to 1,800
3 megawatts of hydraulic generation, and I don't want to
4 get into that issue. That's been gone over many times,
5 but that's a fair statement; correct?

6 MR. SNELSON: A. Again, I come back to
7 what do you mean by the Update. The Update was January
8 1992.

9 Q. By Exhibit 796.

10 A. Exhibit 796.

11 Q. Exhibit 796 and the evidence that's
12 come in on this panel, there has been evidence now that
13 Ontario Hydro has decided to reconsider its NUG policy
14 report in two months; correct?

15 A. We have given evidence as to the
16 Board's decision to put a hold on non-utility
17 generation development.

18 Q. Are there any factors that are going
19 to be considered by that group, studied by that group
20 that are not before this Panel and the parties at this
21 hearing? Are there any factors that are going to be
22 part of that discussion or that review that aren't part
23 of the Demand/Supply Plan?

24 A. That's a very difficult question.
25 Clearly, when you put a NUG program on review and you

1 say you are going to review each and every NUG
2 proposal, then that's going to be looking at a lot of
3 factors to specific proposals.

4 Q. Will they be the same factors that
5 the municipal utility generation task force is looking
6 at, will they be the same factors that they are looking
7 at that haven't been included in the DSP, will those
8 same factors be the ones that the non-utility
9 generation task force intends to look at that aren't
10 part of this hearing.

11 A. There is a preamble in there that
12 says something about factors that the -- each task
13 force, let's start it from another direction. Each
14 task force, whether it's the task force of municipal
15 utilities or the internal groups who are reviewing the
16 NUG proposals and they will make recommendations to
17 Hydro's management and board of directors to act upon,
18 each of them will have to look at the set of
19 information and so on that affects those particular
20 circumstances, and there will be some overlap and there
21 will be some areas that are particular to each one of
22 those tasks forces.

23 Q. Well, Mr. Snelson, will the review go
24 further than looking at the social, economic,
25 environmental considerations that have been discussed

1 here?

2 A. It's the "further than discussed
3 here" that is my problem. That is that I see those
4 review processes as getting into some detail that would
5 not be discussed here.

6 Q. I'll hit the nail on the head --

7 A. It seems to me that the overall
8 framework of factors that affect planning are much the
9 same as discussed here.

10 Q. Will the issue of the public power
11 pool be discussed by the NUG task force as it's being
12 discussed by the municipal utility generation task
13 force?

14 A. I would not expect so because that is
15 renewing NUG proposals that have nothing to do with the
16 public power pool concept.

17 Q. Thank you. Is it still Ontario
18 Hydro's intention to pay - and I understand it is - to
19 pay the customer to consume less power with demand
20 management programs that pass the total customer cost
21 test; that's fair?

22 A. Maybe Mr. Shalaby should answer that.

23 MR. SHALABY: A. Yes.

24 Q. And your evidence hasn't changed that
25 the total benefits would be even greater if the

1 customers use less electricity and didn't need
2 subsidies to do it; is that fair?

3 A. It introduces the inequity.

4 Q. So wouldn't the total benefits be
5 even greater if the customer got off the Ontario Hydro
6 system entirely and didn't need any benefits to do so?
7 Subsidies, benefits.

8 A. Can you say the question again? I
9 don't know what you changed.

10 Q. Sure. So wouldn't the total benefits
11 be even greater if the customer got off the Ontario
12 Hydro system entirely and didn't need any subsidies to
13 do it?

14 A. Benefits from certain perspectives
15 may be greater, yes. But from other perspectives it
16 may or may not be greater.

17 Q. And from the other perspective, I
18 take it that that perspective is the one that Ontario
19 Hydro relies on for discouraging municipal load
20 displacement generation?

21 A. Yes.

22 Q. And have those factors --

23 MR. SNELSON: A. Maybe I could just put
24 some perspective in here, and that is that in a period
25 when you need capacity, then we try to provide a

1 balance between load reducing options which increase
2 efficiency like demand management, and other generation
3 options no matter who might develop them, whether they
4 are NUGs or municipal utility generators or Ontario
5 Hydro.

6 We are in a situation of dynamics at the
7 moment in that we want to continue the momentum of our
8 demand management program because of its benefits in
9 terms of long-term improvement in the energy
10 infrastructure of the province.

11 Q. Yes, I understand, Mr. Snelson. And
12 it follows logically to me why the demand management
13 program and the subsidies, if they pass the total
14 customer cost test still makes sense to you. And I am
15 then asking, well, apply that logic to load
16 displacement and it should make even more sense to be
17 encouraging more load displaying. But the evidence is
18 that Ontario Hydro is discouraging load displacement
19 because of issues regarding the public power pool. And
20 all I am asking is, if you could just let me know how
21 those two can jibe in this exhibit, 796?

22 A. The municipal utility generation that
23 we are discouraging may not pass the total customer
24 cost test and certainly would have an increased chance
25 of passing the total customer cost test at the time

1 when we need new capacity. During a period of surplus
2 capacity, examination of the total customer perspective
3 is going to show that it is better if it is deferred.

4 Q. And where is your evidence that it
5 would not pass the total customer cost test?

6 A. Well, I think you come back to the
7 discussion we had this morning about what happens to
8 total customer cost, we talked about least cost. And
9 that during the period of capacity surplus when the
10 incremental cost, which is used in the avoided cost
11 calculation, used in the total customer cost
12 calculation, when the incremental cost is 2 cents a
13 kilowatthour, it does not make sense to go out and have
14 more generation installed at a cost of 4 cents a
15 kilowatthour, say, just because the rate happens to be
16 5 cents a kilowatthour.

17 Q. Mr. Snelson, as I understand the
18 total customer cost test, in addition to the financial
19 costs and benefits that it is supposed to measure,
20 there is supposed to be environmental advantages
21 external to the financial transaction from substituting
22 combined-cycle or cogen gas generation, for steam
23 turbine coal generation. That's one of the benefits
24 that you are measuring in your total customer cost
25 test; correct?

1 A. No.

2 Q. Thank you. Isn't there also a social
3 benefit from creating economic activity, jobs and tax
4 revenues, at a time when they are scarce and sorely
5 needed? Wouldn't that be measured by the total
6 customer cost test?

7 A. The total customer cost test is not a
8 total societal cost test, and that was why I said no.

9 The total customer cost test as defined
10 in the Demand/Supply Planning Strategy is the sum of
11 the costs of an option to Ontario Hydro and its
12 customers seen as a group, and it is recognized that
13 there are external effects, environmental, social, and
14 macro economic, that may not be captured by that test
15 and they are additional factors to be taken into
16 account in decision-making.

17 Q. So then you are saying, you pointed
18 to the benefits financially of discouraging municipal
19 electrical utilities and you are pointing to the
20 benefits to Ontario Hydro of discouraging municipal
21 electrical utilities, have you taken into account - and
22 I ask you what evidence there was to support that -
23 have you taken into account the environmental
24 advantages and disadvantages, the total societal
25 disadvantages and advantages of Ontario Hydro

1 generation versus self-generation?

2 Have you taken into account for the
3 purposes of protecting the public power pool the issues
4 of the needs and the -- or the creating economic
5 activity, jobs and tax revenue, have any of these
6 things been put into your calculation in determining
7 whether or not this is a good or bad thing, a benefit
8 or a disadvantage?

9 A. Well, some of these things you
10 mentioned are some of the difficult issues that are
11 being addressed by the task group.

12 The decisions on the actions that have
13 been taken to date are the best judgment of the people
14 who are making the decisions, taking into account both
15 the cost implications and other implications as they
16 are known to them.

17 Q. All right, thank you.

18 So, Mr. Snelson, some of these issues are
19 being grasped by the task force and the evidence that
20 you gave this morning with regard to the financial
21 considerations of municipal load displacement,
22 municipal load self-generation versus Ontario Hydro
23 supply power, that's the evidence that you are relying
24 on for purposes of discouraging municipal self-
25 generation; correct?

1 A. Well, I indicated the type of
2 evidence. We have indicated illustrative numbers, but
3 we believe they are the right order of magnitude.

4 [2:45 p.m.]

5 Q. Thank you. Has Ontario Hydro
6 quantified how much it would be worth to Ontario Hydro
7 customers to preserve the public power pool as you
8 define it? Have you quantified how much of a benefit
9 there is financially?

10 A. Not to my knowledge.

11 Q. And I think I understand what you
12 mean when you speak of the public power pool, but I
13 don't think the term has been used at this hearing
14 before. Maybe you should just define it for the record
15 what you are referring to when you say the 'public
16 power pool' and how Ontario Hydro defines it.

17 A. Well, I don't know whether I can give
18 a precise definition, but the general idea flows from
19 the way in which Ontario Hydro was formed as being a
20 way in which municipal utilities could all take power
21 from a central facility, and there is some question,
22 which the MEA sometimes debates, as to whether in fact
23 that gives them ownership of Ontario Hydro, but
24 essentially they form together to form a central
25 organization to generate electricity and the cost and

1 benefits of the electricity generation are shared among
2 all municipal utilities and other customers to the
3 system. But the municipal utilities are also publicly
4 owned, the same as Hydro.

5 I think the sense that we have and has
6 always been there is that there is some overall benefit
7 to the pooling of costs and benefits and that everybody
8 thereby over the long run benefits compared to each
9 utility generating its own power and being independent
10 and separate.

11 Q. Thank you, Mr. Snelson.

12 Mr. Snelson, this may not be a question
13 you want to answer and I think I am giving you an
14 opportunity not to.

15 MR. B. CAMPBELL: Accept now. [Laughter]

16 MR. MATTSON: Q. On a closer reading of
17 the original Demand/Supply Plan hearing could a party
18 have reasonably anticipated the decision of Ontario
19 Hydro to rescind the right of first refusal for
20 municipal utilities over NUGs or Ontario Hydro's recent
21 policy of discouraging and opposing the right of
22 customers to self-generate? Is that something that was
23 discussed --

24 THE CHAIRMAN: I am a little bit troubled
25 by the 'right of first refusal' as if it was some legal

1 concept.

2 I had understood that Ontario Hydro's
3 policy with the municipal utilities was that if they
4 came along with a plan to generate their own
5 electricity that in the past they were in general
6 permitted to do that.

7 Have I got that --

8 MR. SNELSON: Yes, I believe it is, but
9 it applies specifically to a non-utility generator who
10 is within the service territory of a municipal utility
11 that that municipal utility would have the option of
12 buying that non-utility generation directly rather than
13 that being purchased by the Ontario Hydro system and
14 being pooled across the province.

15 THE CHAIRMAN: But it wasn't a right as
16 such. It was a policy that Ontario Hydro had at one
17 time.

18 MR. SNELSON: As I understand it, it was
19 a policy. I won't debate whether it is a legal right
20 or not. That is for lawyers to debate.

21 MR. MATTSON: Q. All right. I have the
22 term 'right of first refusal' as something that you
23 used in evidence, and I didn't mean to mean it was a
24 legal right. Maybe we can work on that.

25 But would a party upon reading the

1 original Demand/Supply Plan, would they have seen any
2 indication in that plan that there was some flexibility
3 built in the plan to in fact rescind that right and in
4 fact discourage municipal self-generation?

5 Those two changes, I might call them,
6 that have certainly come to light in Exhibit 796 and
7 have been testified to, would a party have had notice
8 that Ontario Hydro would make these sorts of changes in
9 their 25-year plan?

10 MR. B. CAMPBELL: Well...

11 MR. SNELSON: It is very hard to judge
12 what a party would or would not have been able to guess
13 might happen in the future from reading a particular
14 document. It seems a pretty -- I'm not sure that I can
15 add anything useful by answering that question.

16 MR. MATTSON: Q. But would you agree
17 that there wasn't any discussion of it as such, that
18 these two possible alternatives the municipalities had
19 towards meeting their electricity needs might somehow
20 be discouraged by the utility, by Ontario Hydro as part
21 of the Demand/Supply Plan?

22 THE CHAIRMAN: Doesn't that depend on
23 reading the Demand/Supply Plan? Certainly, load
24 displacing and non-utility generation is very much a
25 part of the Demand/Supply Plan.

1 MR. MATTSON: Yes.

2 THE CHAIRMAN: I don't recall - but I
3 wouldn't say I have encyclopedic knowledge of Exhibit
4 3 - any reference at all in the whole document to the
5 policy that municipalities in a given situation might
6 be permitted to buy non-utility generation in their
7 service area.

8 MR. MATTSON: That may be so, Mr.
9 Chairman. And if that is so, Mr. Snelson, you can
10 indicate.

11 Q. I also would say that there is also
12 no discussion of the disadvantages of self-generation
13 in the Demand/Supply Plan either, was there.

14 MR. B. CAMPBELL: Well, Mr. Chairman, I
15 think whatever there is in the document is in the
16 document, If my friend finds deficiencies he is free
17 argue them at the appropriate time. The document is
18 there. What he is looking for is either there or not,
19 and he can satisfy himself.

20 MR. MATTSON: All right, then.

21 THE CHAIRMAN: I think that is a fair
22 position. I don't think we can expect Mr. Snelson to
23 put himself in the shoes of someone reading the
24 Demand/Supply Plan.

25 MR. MATTSON: All right, Mr. Chairman. I

1 guess I was moving one step further and saying that if
2 I was the person is there anything he could point to in
3 that plan itself?

4 THE CHAIRMAN: I think that requires a
5 reading of the plan itself.

6 MR. MATTSON: Can I ask this then, Mr.
7 Chairman? Is it fair to suggest that there wasn't any
8 reference in the Demand/Supply Plan as to
9 disadvantages?

10 THE CHAIRMAN: I think that is the same
11 question in a slightly different way.

12 MR. MATTSON: Thank you. I just have one
13 final question following up from something earlier this
14 morning. It is quite quick.

15 Q. Mr. Snelson, I take it that you are
16 formally aware of the projects in Kingston, Toronto and
17 Windsor, and I think it would follow that you are aware
18 that Kingston and Toronto are proposing district
19 trigeneration systems? Are you aware of that?

20 MR. SNELSON: A. Not in any detail.

21 Q. But you are aware that there are
22 trigeneration systems?

23 A. I am aware that there are
24 cogeneration systems.

25 Q. So if I said the word 'trigeneration'

1 as something further than --

2 A. 'Trigeneration' is a term I came
3 across a few weeks ago. I now know what it means. I
4 don't believe it is something that we have discussed in
5 the lexicon of this hearing.

6 Q. That is what I was getting at, that
7 trigeneration is different from cogeneration; correct?

8 A. In my mind it is a subset of
9 cogeneration.

10 Q. It is more efficient?

11 A. It is another use of the heat, as far
12 as I can see, from the cogeneration process.

13 Q. So it is more efficient, would you
14 say?

15 A. I haven't looked at the efficiencies.
16 It may be.

17 Q. Can you just then explain, Mr.
18 Snelson, what it is?

19 A. My understanding is that the term
20 'trigeneration' is being used by some people - as I
21 say, I don't consider it an accepted term - is one that
22 the generation of electricity is coupled with the use
23 of waste heat, and the waste heat from the generation
24 process is used, and in that sense it is cogeneration,
25 and that the uses of the waste heat can include both

1 heating and cooling.

2 Q. All right. And so the triad: the
3 heating, the cooling, and the electricity?

4 A. Yes. But as I see it, it is a form
5 of cogeneration.

6 Q. As you have already indicated, that
7 isn't something that -- that type of technology, that
8 isn't something that there has been any evidence at
9 this hearing on - to date anyways; is that fair, Mr.
10 Snelson?

11 A. There is a huge volume of paper
12 associated with this hearing, and I can't recall any
13 specific discussion of it, but it may be somewhere in
14 the transcript or the exhibits, I don't know.

15 MR. MATTSON: Thank you. Those are all
16 my questions, Mr. Chairman. Thank you.

17 THE CHAIRMAN: Thank you, Mr. Mattson.

18 MR. B. CAMPBELL: Mr. Chairman, I might
19 just point out for my friend who has an interest in
20 Exhibit 3 that at page 8-2 it is pointed out as
21 discussed in that document that non-utility generators
22 include private and municipal utilities and private
23 power producers. That is just one reference that he
24 might find handy.

25 THE CHAIRMAN: Mr. Thompson, I think you

1 are next. Would that be right?

2 MR. THOMPSON: That's correct.

3 THE CHAIRMAN: Is tomorrow morning
4 convenient for you at nine o'clock?

5 MR. THOMPSON: I guess it will have to
6 be, Mr. Chairman.

7 THE CHAIRMAN: And then, Mr.
8 Klippenstein, you are next; is that right?

9 MR. KLIPPENSTEIN: That's correct.

10 THE CHAIRMAN: And then Mr. Mondrow and
11 Mr. Rosenberg?

12 MR. ROSENBERG: Yes.

13 THE CHAIRMAN: If it is more
14 convenient --

15 MR. MATTSON: I do apologize, Mr.
16 Chairman, for any inconvenience I have caused other
17 parties.

18 THE CHAIRMAN: No, no. No problem.
19 If you want to go now, Mr. Thompson, we
20 are prepared to deal with you now.

21 MR. THOMPSON: That would be a great
22 convenience, Mr. Chairman.

23 MR. B. CAMPBELL: Mr. Chairman, while Mr.
24 Thompson is coming forward, I made arrangements a very
25 long time ago for a meeting from 12:00 until...I guess

1 it will go to about 1:30 tomorrow, and I wonder if we
2 could adjust the lunch break to those hours.

3 I will have to duck out just slightly in
4 advance and may be a little late, but it never occurred
5 to me that I would still be in the middle of Panel 11
6 cross-examination.

7 I wondered if I could ask that the lunch
8 break be adjusted tomorrow. I will sort of deal with
9 the overlaps myself.

10 THE CHAIRMAN: Yes, that will be all
11 right.

12 MR. B. CAMPBELL: Thank you, Mr.
13 Chairman.

14 MR. THOMPSON: Good afternoon. I have a
15 one-page photocopy of a flier promoting the Canadian
16 Farm Equipment Show starting today and --

17 THE CHAIRMAN: It passes the test of
18 relevance, does it?

19 MR. THOMPSON: I would rather be there
20 today than here with all due respect intended, Mr.
21 Chairman. But timing is what it is that I have handed
22 out copies to Ontario Hydro. There are extra copies
23 here.

24 THE REGISTRAR: Is that an exhibit, Mr.
25 Chairman? That will be 1049.

1 are.

2 Q. Thank you. Now, focusing then, the
3 next question is on Exhibit 796, attachment A, on page
4 14, dealing with environmental control equipment, and
5 with particular reference to Lambton about the middle
6 of the page it indicates that other implications, the
7 alternative of proceeding to retrofit the second pair
8 of Lambton units - I am skipping ahead - might satisfy
9 local community expectations, reduce air emissions and
10 other advantages.

11 Would it be your understanding that the
12 expectations of the agricultural community might be a
13 significant part of what are broadly classified as
14 'community expectations'?

15 MR. SNELSON: A. I don't know whether
16 that is specifically intended by that phrase, but it
17 certainly falls within the general classification of
18 community expectations.

19 Q. So to use terms that are being
20 broadly used in this hearing, then, the concerns of the
21 agricultural community would be considered an
22 externality, if you want to put it in that way, towards
23 the decisions to retrofit the second pair of Lambton
24 with additional emission control devices?

25 A. Yes.

1 Q. Okay. And a third question has to do
2 with the potential mothballing of Bruce "A".

3 Now, it is my understanding that there is
4 a Bruce Energy Centre affiliated with the Bruce Nuclear
5 Power Development which uses steam byproducts to power
6 a number of industries.

7 What effect would there be, if any, on
8 this Bruce Energy Centre from a potential shutdown or
9 slowdown of the Bruce "A"? I guess what I am getting
10 at is, is the Bruce Energy Centre connected to Bruce
11 "A", Bruce "B", or both?

12 I don't think I need an undertaking on
13 that. I would just like some assurance from this Panel
14 that any considerations if at all of the decision to do
15 something at Bruce "A" to try to include the
16 potential -- excuse me, the potential effects if any on
17 this Bruce Energy Centre.

18 A. I think I can say two things in
19 response to that.

20 The first is that I believe that there
21 are no facilities for taking steam from Bruce "A" --
22 from Bruce "B" to the Energy Centre. So as it is
23 currently configured with the current equipment that is
24 there, then the Bruce Energy Centre gets its steam from
25 Bruce "A" rather than Bruce "B".

1 The second thing I can say is that the
2 impacts on the local community of whatever is decided
3 for Bruce "A" is of great concern to the Bruce "A"
4 Review Group, and that would include the effects on the
5 Bruce Energy Centre.

6 Q. All right. It is just that it hadn't
7 been mentioned, and it certainly would loom as
8 certainly a large part of any analysis would be the
9 impact upon totally dependent operations. Thank you.
10 Now, the last question I have is on Exhibit 796,
11 attachment C, page 94, dealing with electricity used by
12 the agricultural sector, and it outlines the details of
13 the forecasts and so on, and the last sentence was the
14 1990 agricultural forecast was used again in the
15 production of the 1992 load forecast.

16 I seem to recall, although I didn't look
17 it up in the transcripts, that there had been some
18 assurances made to me that there was some work being
19 done on the agricultural sector to incorporate an end
20 use model and so on. Is this Update still being done,
21 or has it been part of the cutback process?

22 MR. BURKE: A. Well, I think -- I can't
23 remember exactly what we said we were planning to do as
24 far as the agricultural sector forecast when we were
25 here on Panel 1.

1 [3:05 p.m.]

2 But the fact is that we have not been
3 able to do anything more than we did at the time of
4 Panel 1, and that's why we have used the same forecast
5 as before.

6 Q. I would be perfectly satisfied if you
7 said you were busy doing other things and maybe in the
8 1993 forecast, that more up-to-date figures might be
9 used.

10 A. We will certainly endeavour to update
11 the forecast next year.

12 Q. Hopefully you will have more time in
13 '93 than you had in '92.

14 A. I hope so as well.

15 MR. THOMPSON: Thank you very much,
16 panel.. Thank you, Mr. Chairman.

17 THE CHAIRMAN: Thank you, Mr. Thompson.

18 We will now adjourn until tomorrow
19 morning at nine o'clock.

20 THE REGISTRAR: Please come to order.
21 This hearing will adjourn until nine o'clock tomorrow
22 morning.

23 ---Whereupon the hearing was adjourned at 3:07, to be
24 resumed on Wednesday, January 20, 1993, at 9:00 a.m.

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